

**ARCHITECTURE DEPARTMENT**

**CHINESE UNIVERSITY OF HONG KONG**

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DESIGN REPORT

**URBAN IN-BETWEENNESS:  
AN ALTERNATIVE LEARNING EXPERIENCE  
FOR CHILDREN**

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Thesis Report  
Urban In-betweenness: An Alternative Learning Experience for Children

# Acknowledgements

Pieter Bruegel, Game of Children, 1560



This thesis is dedicated to those who care about the future of our children and our environment.

I would like to thank my instructors, Professor Jeff Cody and Tim Nutt for their valuable supervisions and encouragements throughout the year; Professor David Johnson for his advice on my research; Mr. Kevin Li for arranging the visit to the Primary School in Tai Po; Miss Veronica Chan, an expert of children's play who gave me a new perspectives on children's behaviors; all classmates, especially those from the Habitation studio; friends and family for their helps and support.



# 00 Introduction

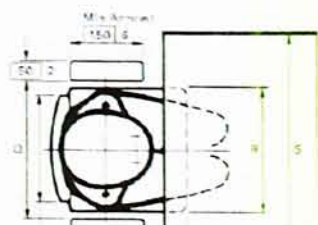
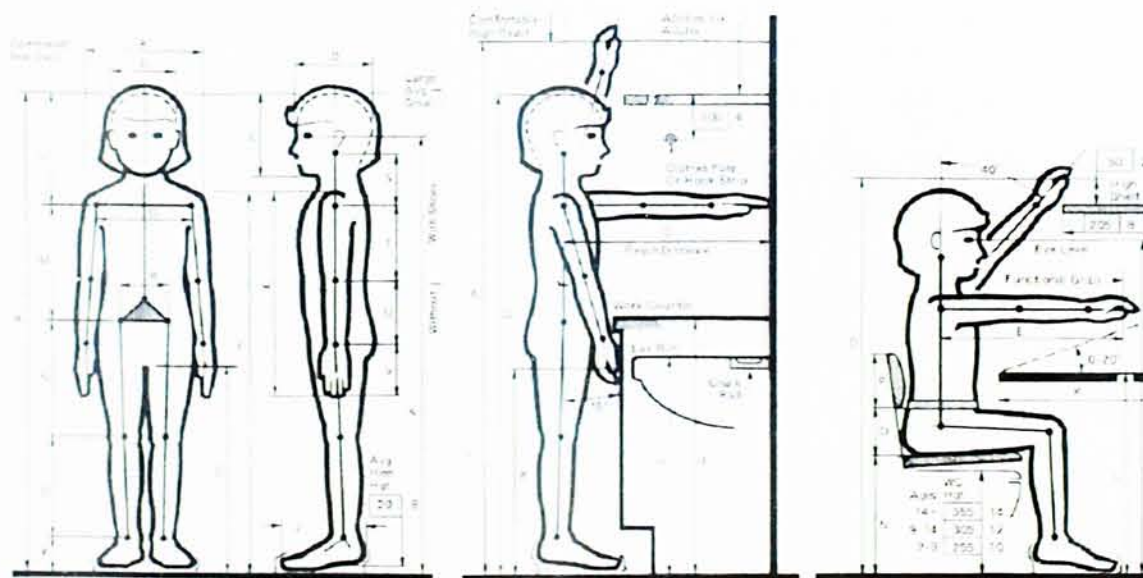
*"Children's play is not a juvenile version of recreation. Play is celebration and discovery."*

*Barbara Hendrich, Design for Play*

Play is the activity associated with children as it is the privilege of being a child. Unlike adults, children play to establish experimental relationship with their own physical and interior existence and learn to relate to the adult's world. This unique experience plays an important part in the process of growing up of a child, and is often coloured with joy and pain, tenderness and harshness, light and darkness.

Childhood in the modern society is flooded with mass produced child-oriented products. Numerous researches have been done to study children's behaviour and spaces for children are carefully designed to induce playfulness and amusements and to enhance their safety. Adults seem to understand children very well despite the widening gap between them. I doubt if these designs fulfill the real needs of children. Are they simply projections of images of what adults conceive to be children's role in our society?

As an architectural student, I would like to take my thesis as the opportunity to explore the role of architecture in shaping children's life in the city. I believe that by studying children's play environment and their play activities, I can learn about the truth of children's real needs and their play environment. Meanwhile, a clear understanding of the nature of childhood may enable me to carry out the mission to provide a better physical environment for them.





# 01 Children's Theory of Play

growing up of the body and mind of a child includes the development of :



*"Play is most frequent in a period of dramatically expanding knowledge of self, the physical and the social world and the systems of communication; thus we might expect that play is intricately related to growth."*

Catherine Garvey "Play"

Unlike the other animals, human being has a prolonged period of maturation and dependence on parents. For a long period of time children need to play to master skills necessary for adult life. What makes it different from play of animals is that human can smile, a signal of pleasure in emotions and tension relaxation. **Play in itself has a function of expressing oneself and shaping individual personality.**

## Play patterns

There are different types of play associated with the process of growing up. Some play patterns occur early in life and some later, but a few types of play emerge at the same period or continue to be played by the child throughout childhood. These play patterns can be classified as the followings:

1. Motion and interaction
2. Play with object
3. Play with language
4. Pretending and make-believe
5. Play with rules
6. Ritualized play



## Play and the senses

*Sensory experience is unstable, and alien to natural perception, which we achieve with our whole body all at once, and which opens on a world of inter-acting senses.*

*Merleau-Ponty*

A baby may not be able to see clearly how his mum looks but he can recognize her smell, her skin, her taste and her voice. The reason why a child is totally engaged in playing is that he / she experience his / her existence in the physical world with all of the senses. **Play of children is definitely a multi-sensory experience in which children learn to coordinate their body movements with their developing minds. It is a natural, instinctive learning activity that does not need to be taught<sup>1</sup>.**

## Play and control

*"Play is the reflex action of man in response to fate..... The thrill of reality has seized hold of man's consciousness and eventually leads to a cosmic emotional expression by acting out of ordinary life."*

*J. Huizinga, "Homo Ludens"*

If growing up is a process of power struggle for the control of one's fate, playing is the experiment which allows a child to exercise the power of control over oneself and the environment before he enters the society. Once a child has learnt the power of control of one part of his body, he / she desires to gain control to the other parts of the body and eventually a child needs to control the environment and situations. In fact, **play expresses the desire of being independent from parents and being an individual capable of taking care of himself.**





## **Conclusion: Multi-sensory workplace for children**

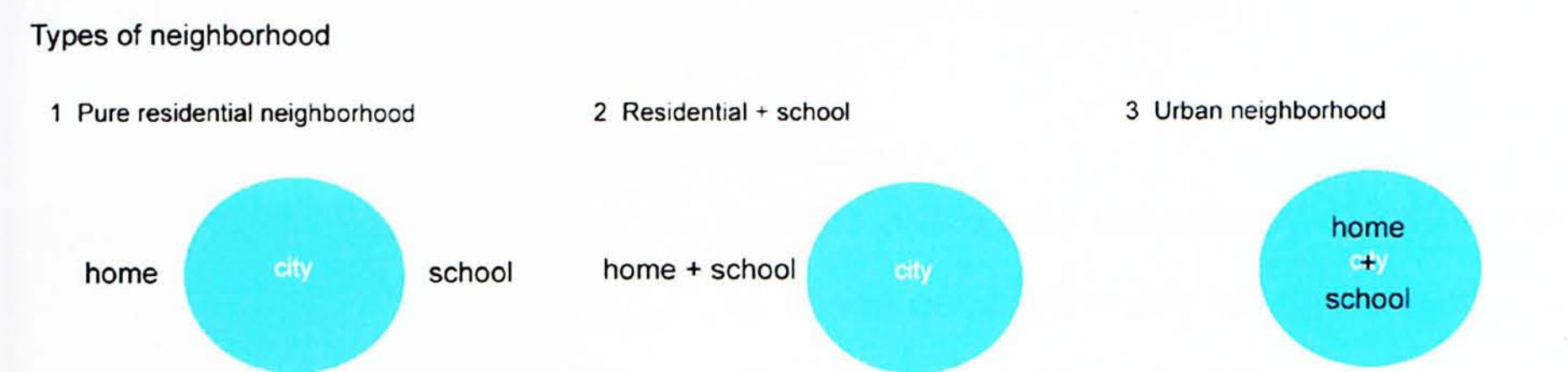
Children's play patterns suggest that sensuality of human beings is a natural gift which deserve for preservation, not suppression for the hegemony of the eyes. The preference of ocularcentrism in architecture implies that architects have long forgotten the sensory experiences they used to have since childhood. Relying on the visual sense has resulted in the architecture distancing of human relation to reality.<sup>6</sup> **A return to multi-sensory architecture is essential not only for children but for people in all generations. It is the task of architecture to form a bridge between nature and the man-made world, providing the place for experiencing and understanding the world. We need to be reminded of our own existence by this experience with architecture.**



<sup>1</sup> Aaron Falbel p.65 1996

<sup>2</sup>, M. Borland P47 1998

# 02 Childhood Domain - case studies of children play environments

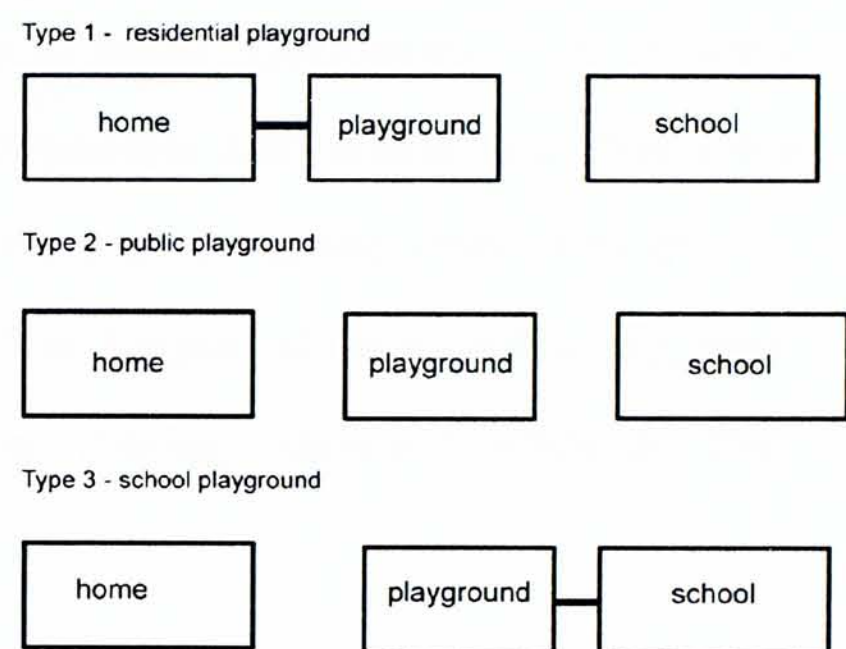


In modern term, playground is defined as the open space equipped with play apparatus for children. It is a safe place where parents do not have to worry about their children while they are playing

In my opinion, playground is the place in-between the childhood domain and the real world where they can experiment their abilities in an alternative environment. Depending on the location of home,school and the neighborhood, definition of playground may vary since one or two of the childhood domains may also satisfy the condition for alternative experience if ithey are close enough to the real world.

The term playground is a perception of adult on children.I now use a more general term childhood domain instead to classify the following play environments of children.

Relationships between playground, home and school





# Childhood Before 19th Century

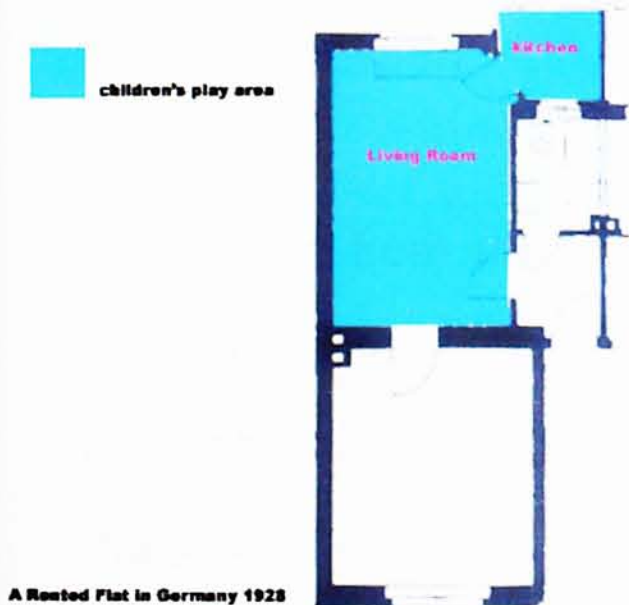
## Childhood Domain: Home (Western example)



Home of working class, England where working, playing and living all took place in the same space

Despite a short life expectancy of infant, there was no space designed solely for children in a working class / peasant house. Children were expected to grow up as soon as possible to work and support the family. Since their parents were too busy dealing with farm works or small businesses, children were usually un-accompanies with adults and they were free to go anywhere they wanted when they did not need to work. The house, streets, public squares, backyards, ruins, market place,etc. were all their playgrounds.

A wealthy family would employ a nanny to take care of the children and later a teacher to educate them at home. Children from this type of families spent less time on the streets but more in a mansion in the countryside. The natural environment became their playgrounds.



A Rented Flat in Germany 1928

Kitchen-cum iiving room.  
Both rooms are children  
playgrounds

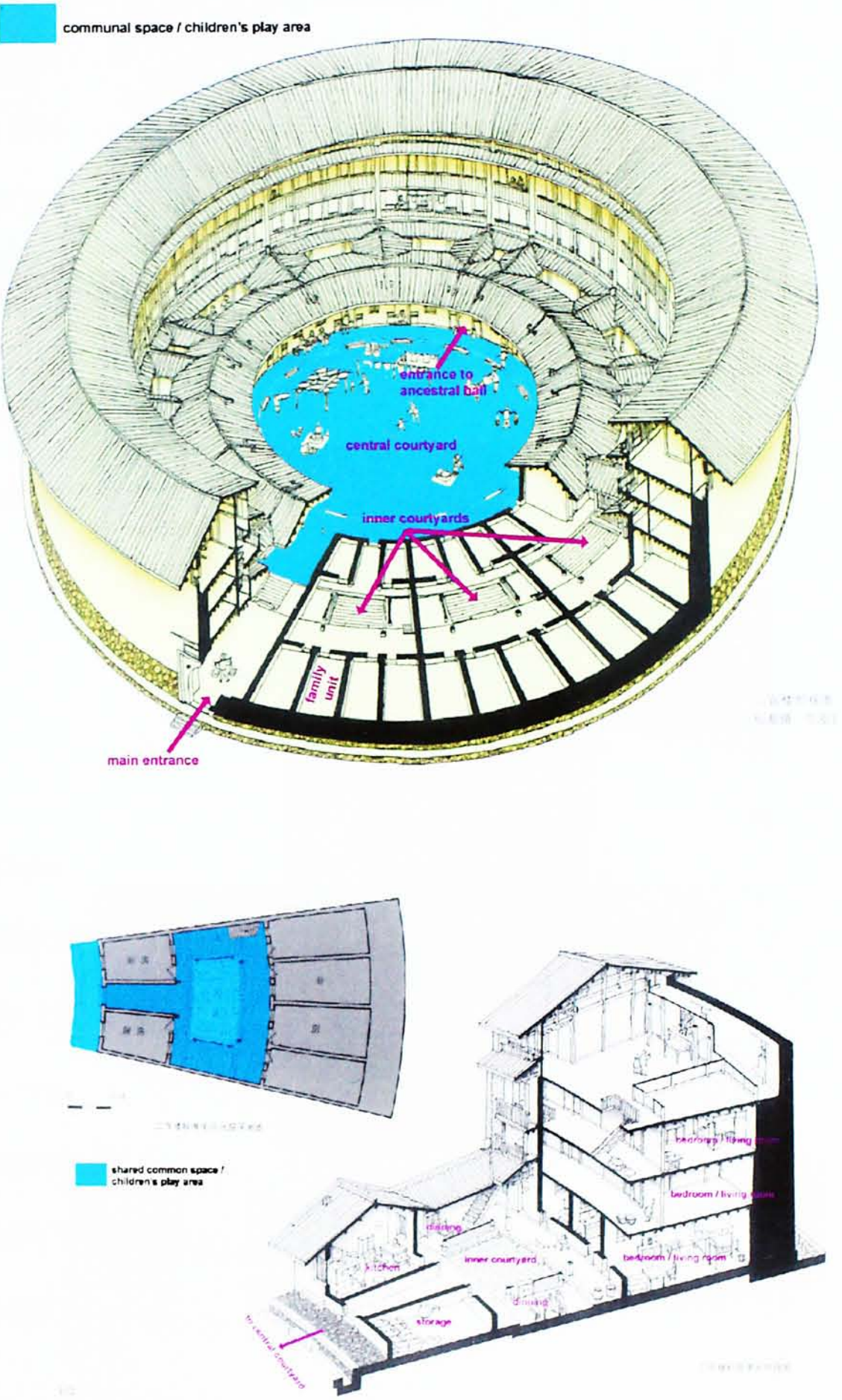


# Childhood Before 19th Century

## Childhood Domain: Home (Chinese traditional courtyard house in Fujian)

This multi-storey circular castle in Fujian was constructed following the philosophy of Confucianism which emphasized the importance of the family value. With the ancestral hall on the central axis., a large central courtyard is surrounded by small family units and provide a common space for the whole community. During the day it is a busy work place for people to dry the crops, hang dry their clothes and fetch water from the wells wheareas in the evening the courtyard becomes a gathering space for dinning, celebration and drama. All members of the community can enjoy the courtyard including children.

Apart from from the central courtyard, there are small private inner courtyards each shared by several family units. All the inner courtyards are directly linked to the central courtyrad so that children are able to play and explore among the adult workplace such as kitchen from the private inner courtyard to the larger workplace in central courtyard.





# Modern Childhood

## Childhood Domain:Home

*Before our century neither the poor nor the rich knew of children dress, childrens games, or the childs immunity from the law. Childhood belonged to the bourgeoisie. The workers child, the peasants child and the noblemans child all dressed the way their fathers dressed, played the way their fathers played and were hanged by the neck as were their father. After the discovery of childhood by the bourgeoisie all this changed*

-Deschooling Society, I. Illich, 1965

Modern home in Hong Kong is more compact than the traditional chinese house and the lack of public space means that children usually play at home in their own rooms or in the living room. Time they spent with parents are fewer although they still have chance to enjoy themselves in the podium garden or club house in some private housing estates.



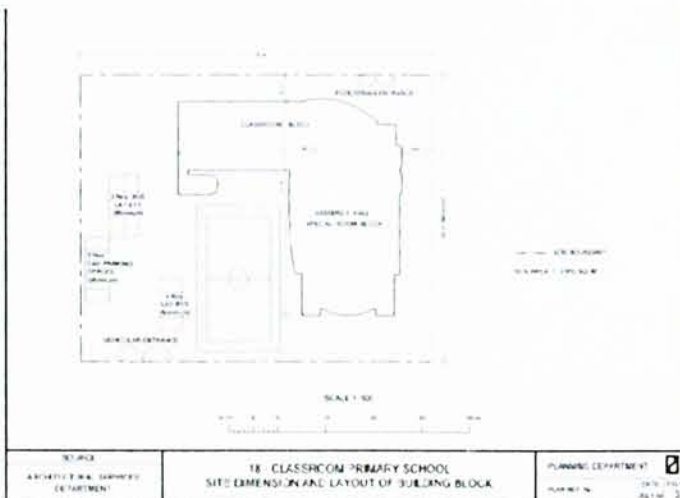
Gallery kitchen in a modern rented flat. Children are supposed to play in their own room.





# Childhood Domain: Traditional School

Educational Act 1870, England - compulsory school attendance for all children meant that collective school life began for all children in the cities or in the countrysides. Since then school became the most important childhood domain.

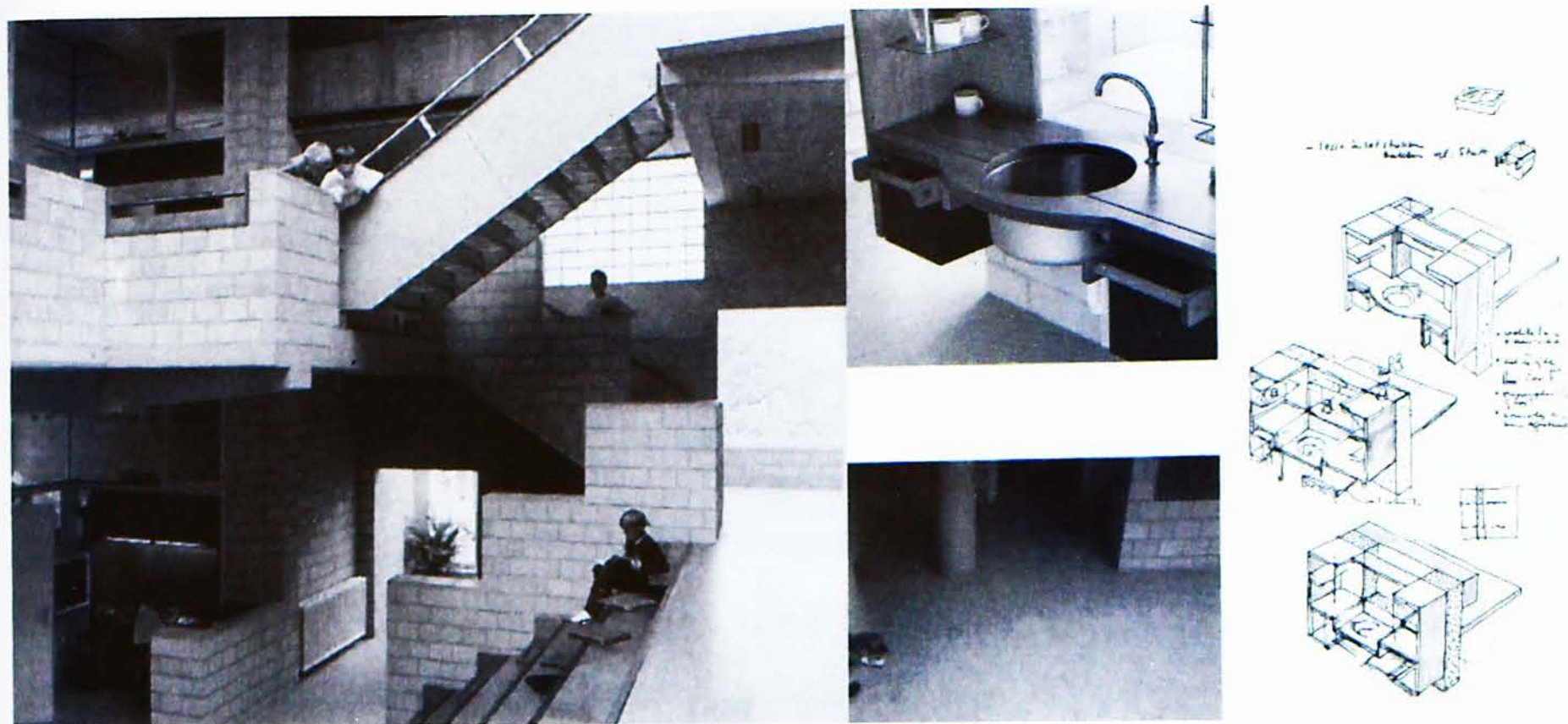


The original purposes of a schoolyard was to provide military training for boys in military school. In modern days schoolyard has become a major play domain where children gather to enjoy themselves by playing and communicating with their schoolmates.

In a traditional school, the use of schoolyard is restricted to certain time of the day. It is not a totally free-play area.



# Childhood Domain: The Montessoril School



*He (a child )must place himself in relationship with the environment and within reach of the events and the life of his time*

*- Maria Montessori*

**Apollo Schools 1980 -83, Amsterdam, designed by Herman Hertberger.**

Following the principles of education o Maria Monterssori, the school was designed to encourage a **self-creating learning environment** for children to act on freely and to take care of their own space.

The architect believed that **school is a minitiature of city with many transitional zones or non-defined space for continuous movement** with the possibilites of changing roles and flexible uses. This is especially appealing to children because they are given the opportunity of **creating situations** for themselves.

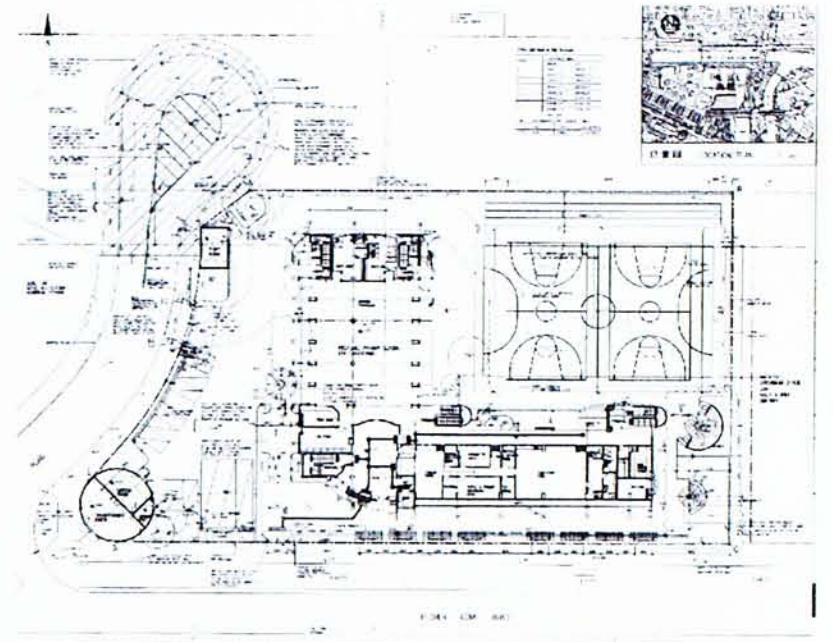
Another feature of the school is the scale of furniture is designed in childs size and light weight so that children can carry them without adults help. The arrangement of a classroom is also free and flexible according to childrens need.



## Childhood Domain: A visit to Tai Po Market Public School (Plover Cove)

Completed in December 2002, the new primary is a Y2K type school building designed by ASD. The school has been very enthusiastic in decorating the interior and to humanize the space with playful and childlike decorations. One of its most successful decorations is the mosaic wall decoration of the transformer room outside the school building. Designed by the teachers, the school organized its students and parents to take part in the sticking of the mosaic tiles together and the event had got a strong support from the parents.

Ground level is equipped with two basketball courts, one covered playground, an amphitheatre and an outdoor cultural promenade. Comparing to a typical urban school, this school has plenty of open space for children to enjoy physical plays and outdoor activities. The land behind the playground will be developed into a farm land for children to practice farming in the near future.





The school is clearly making a lot of efforts to beautify the standardized building form. However, the decoration should include more opinions from the children. What we see here is the teachers perception of children, not the real interest of the children.

The most encouraging feature of the school is the preservation of greenery of the site. It is generally believed that children would be benefited in a green environment.



The interior is decorated with childlike cartoon characters and colourfull paintings designed mostly by teachers.



The hanging tube for umbrellas and bags allows the space to be highlighted with the colours of childrens own belongings. It is an open-ended device which serves more than one simple function.



# Childhood Domain: Public Playground Postwar Amsterdam

## Philosophy of Play

Ludic City - by H. Lefebvre

Homo Ludens by J. Huizinga

The concept of a Ludic city and Play as a civic function had driven Aldo van Eyck to design more than 700 playgrounds all over Amsterdam between 1947 and 1970s. There was a cultural reference for the Dutch since they see children not as weak and dependant creatures but independent citizens and the Dutch families have been very open-minded in childrearing.

**Playground and children were also seen as a healing tools to the city after the devastating experience of the war. The presence of children represented the filling of the void with new life and happiness.**





Aldo van Eyck interpreted **play of children** as an open-ended progress and a temporary phenomenon which created the sense of joy and hope. All of his playgrounds were **site-specific** and were inserted into urban neighborhood all over the city.

Van Eyck also cooperated with artist to design some **Play objects** such as steel frames to be installed on the playgrounds. His designs were un-precedented and successfully **stimulated active play and childrens' imaginations.**



Zaanhof, Spaarndammerbuurt, Amsterdam-Oudwest, 1948, 1950



## Conclusion: Space In-between Childhood Domains

From the theory of play, it is confirmed that children's hope of pursuing individual interest is as important as the wish of gaining social acceptance from the others, i.e. communication and collective experience are not contradicting with the need of personal freedom. A place for children should be able to achieve a balance between the two.

Home is the starting point of the journey of our life, the personal sanctuary situating in a larger domain, i.e. the neighborhood and the city. Before 19<sup>th</sup> century, the local community or the domicile, used to be the place where children played. The relationship between the house and the public domain was so intimate that for example in a Chinese courtyard house, the inside-outside, private-public were blurred and this had made the place more exciting for children to explore. Moreover, the scale difference between adult's and children's dimension was not as extreme as the one in the modern city. Smaller, intimate public spaces such as internal streets and inner courtyards were not built to fit for children but for adults, in a way that children found it easier to adapt themselves to the environment. Ironically in a culture where children were regarded as the members at the bottom of the social hierarchy, the built environment was surprisingly child-friendly.



Empty children's playground in a summer day in King's Park, Yau Ma Tei. Attractive but isolated, the playground does not integrate with the residential and school area, thus fails to provide a chance of alternative experience related to the everyday life of the real world.





In the situation of Hong Kong, children find it hard to relate to the other places to the home environment. Social relationship between neighbors and the local community remains as indifferent as the one between employer and the employees. In Hong Kong the problems of dislocation of the domicile is often caused by the single function of an residential or educational district being separated from the heart of t. **For a design for children to be built in Hong Kong, the architecture should function as a part of the city fabric, integrating with the daily life of people who work, socialise, entertain and .**

The architecture should consist of individual place for children to work as well as transitional in-between places for different activities such as playing, gathering and performance, i.e. streets and plaza. According to Van Eyck, **the in-between place (street) serves to provide the common ground where conflicting polarities are reconciled.**<sup>1</sup> In this sense **the architecture is able to have its internal network that is possible to extend to the street of the city, thus, creating passages to the adult world.**

<sup>1</sup> Aldo Van Eyck p.88, 1999

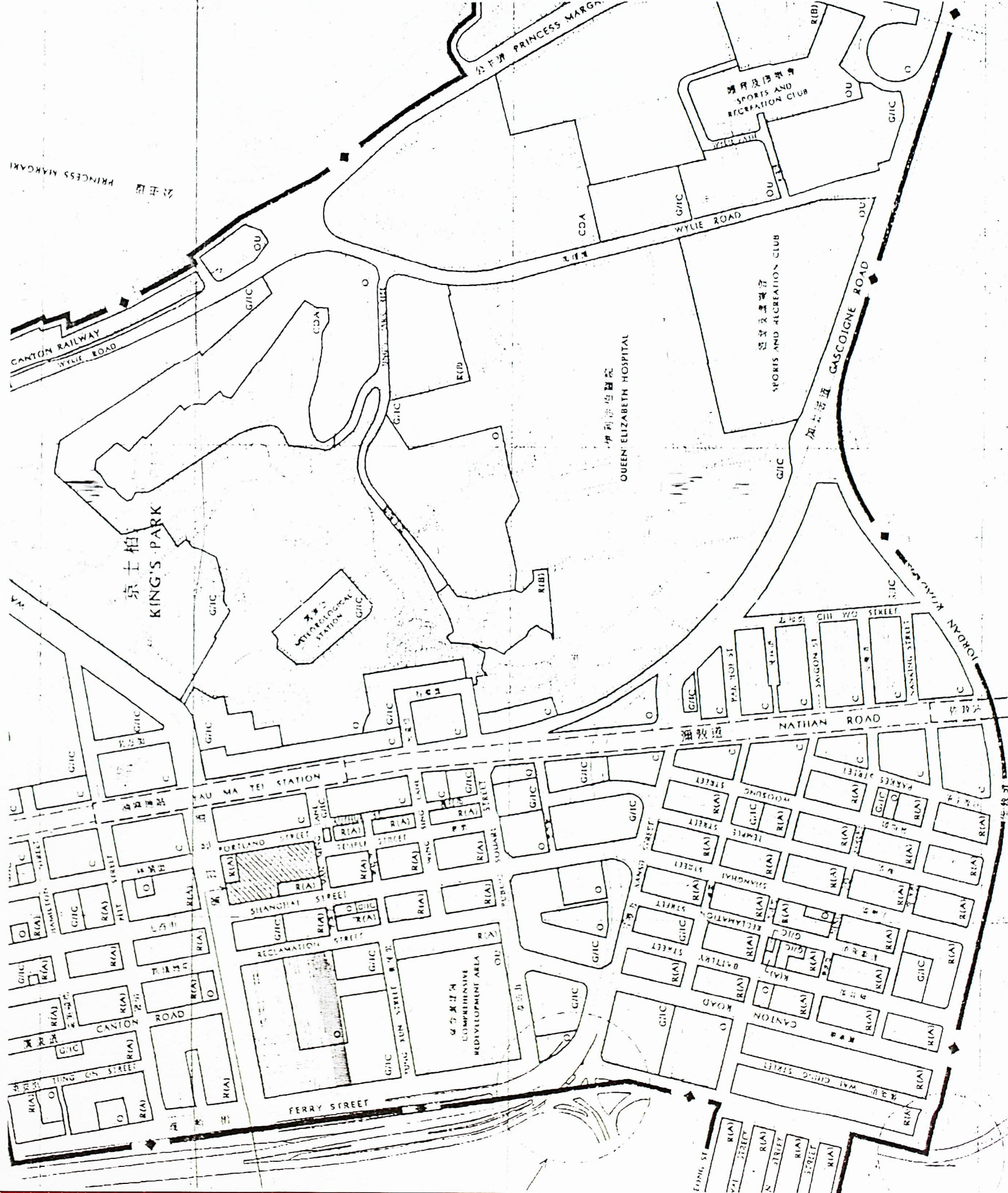
## 03 Site Study: Yau Ma Tei





site location

OZP (last updated) 1998



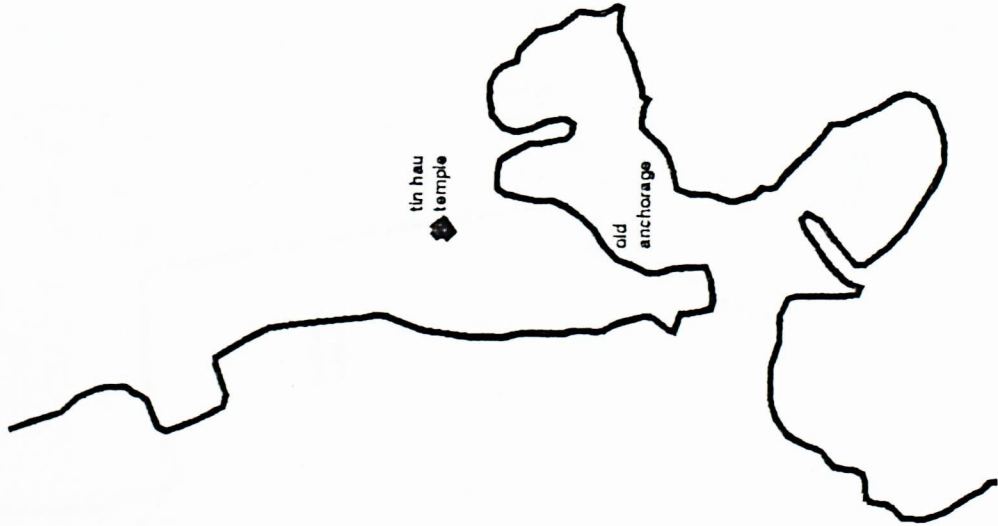


# Evolution of Yau Ma Tei

## Stage 1

Anchorage and market town before 1876

old anchorage and market town before first reclamation in 1876



## Stage 2

New town and mixed community of land and boat people after reclamation in 1904



Typhoon Shelter completed and new town on reclaimed land (formation of Reclamation Street to Ferry Street)

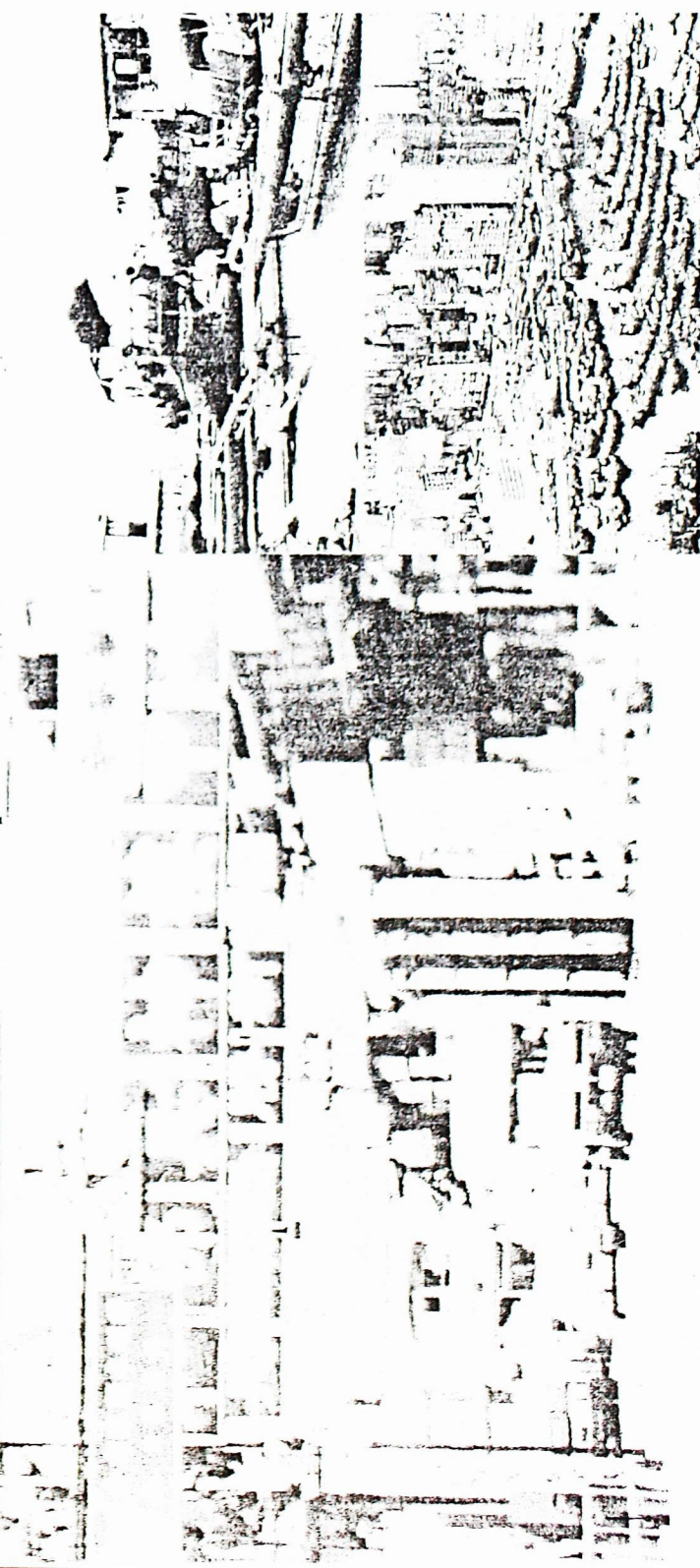
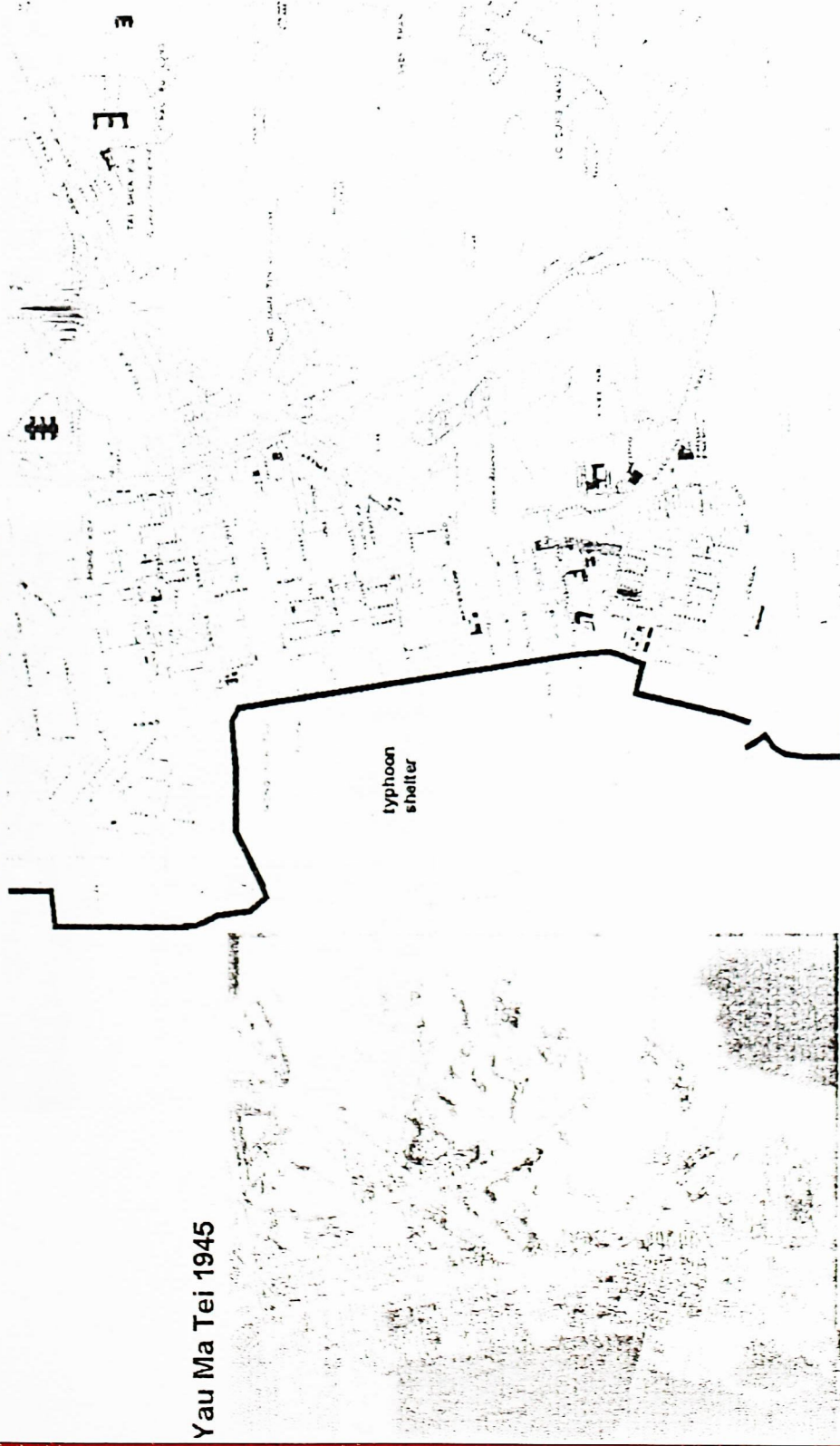


# Evolution of Yau Ma Tei

## Stage 3

Post-war prosperous urban centre 1950s to 1980s

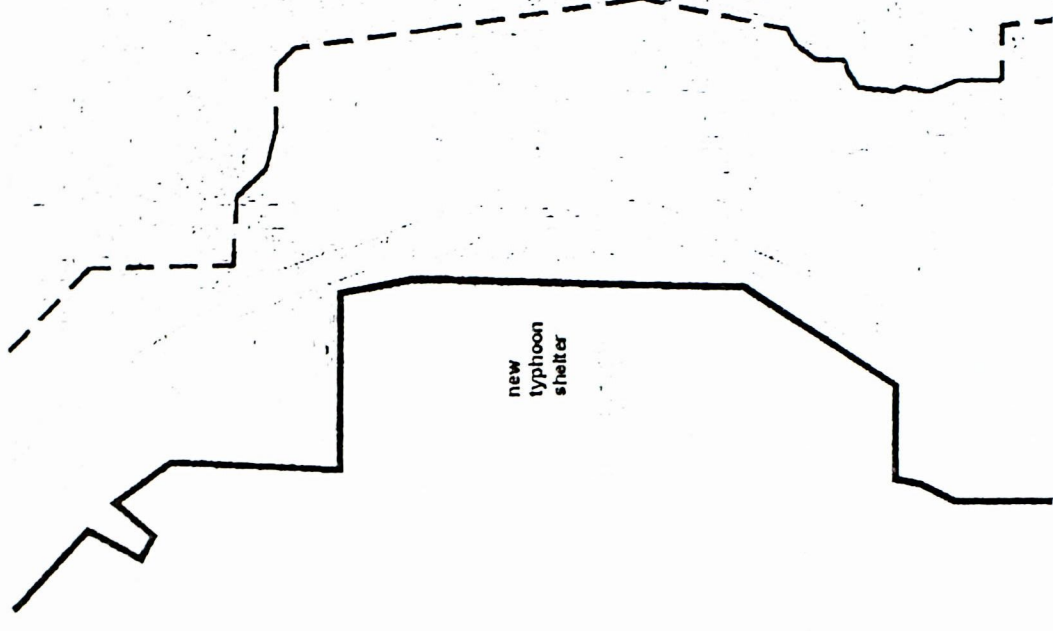
Heavy development 1950s to 70s and further reclamation to Tong Mei Road



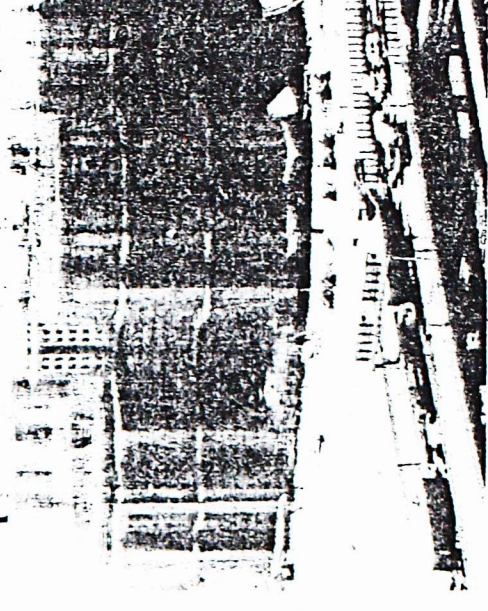
## Stage 4

Urban Renewal since the close of typhoon shelter in 1992

West Kowloon further reclamation provided more land for new developments

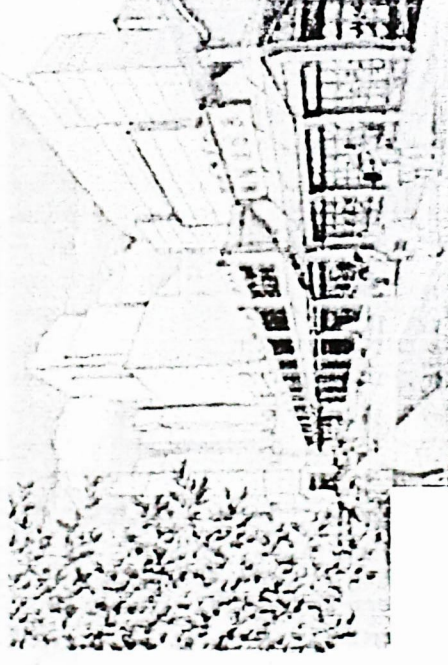
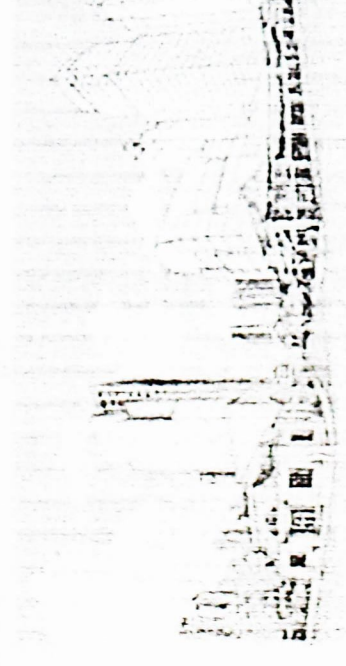


Redevelopment in progress and construction of West Kowloon Corridor - infrastructure has replaced the typhoon shelter





## Future



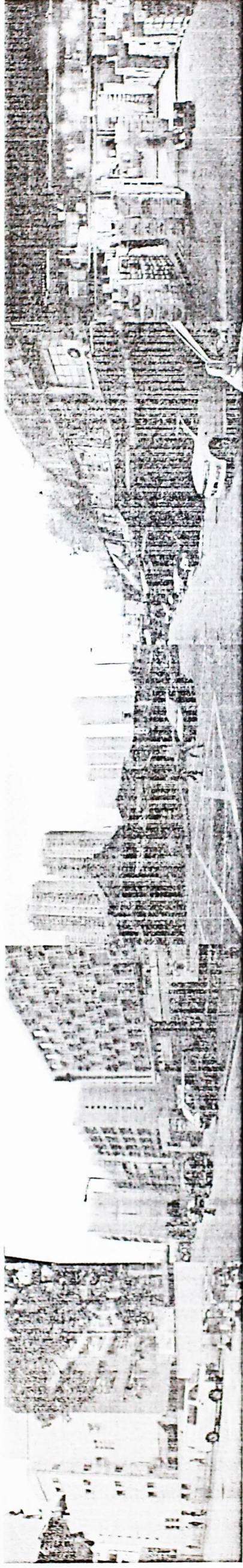
Plans have been made to move the market to the Cheung Sha Wan Wholesale Market Complex in 2004 but the market traders are still in dispute with the government. Future is still unknown for the market but the urban renewal council has proposed a rehabilitation of the area by turning the market into a park and the existing stone structure will be preserved and renovated as a new market complex similar to the Convent Garden in London







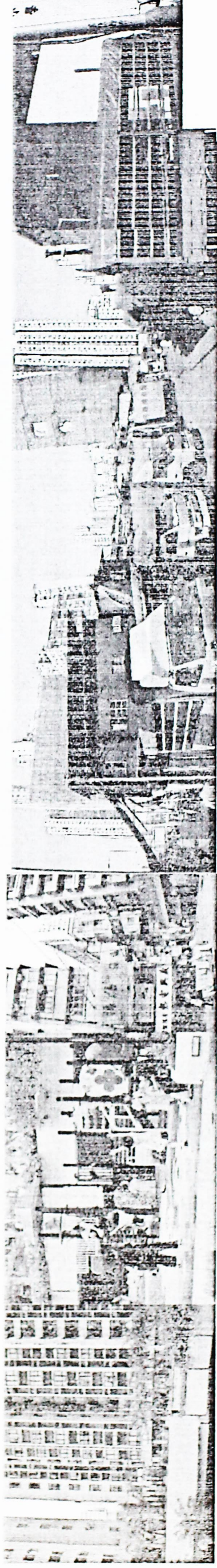
Three Primary Schools



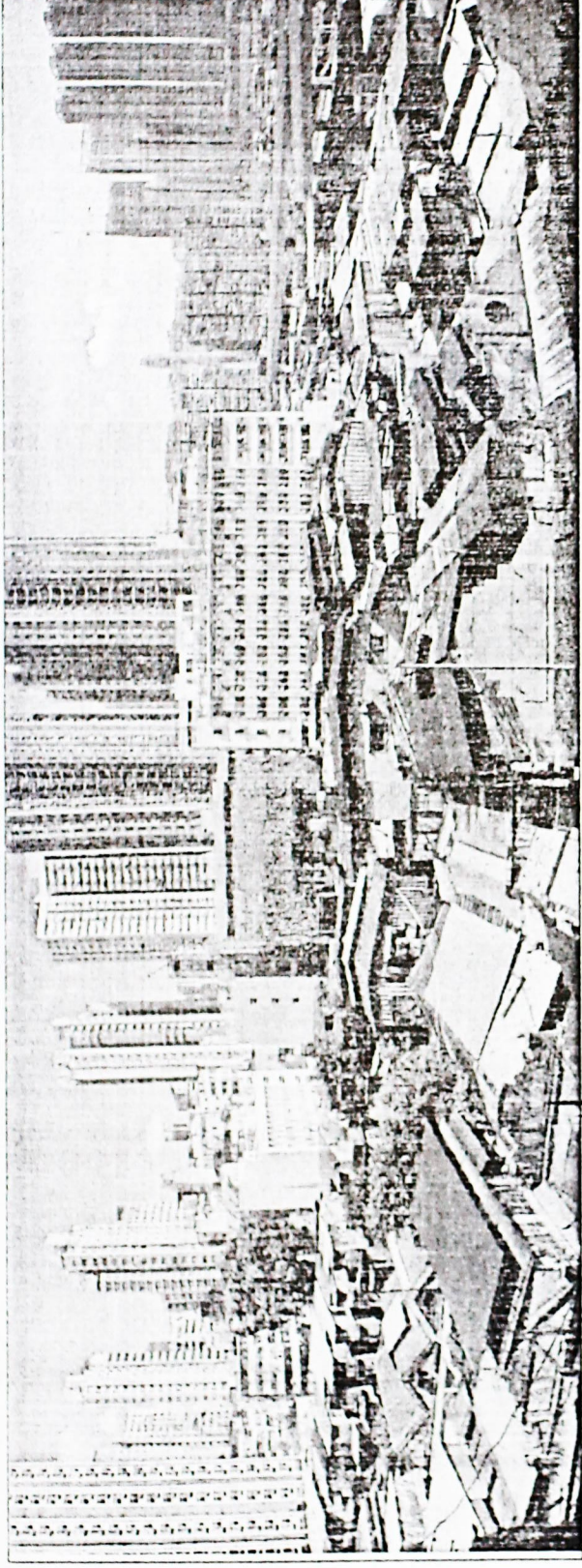
Fruit Market

Home

Site: truck parking area



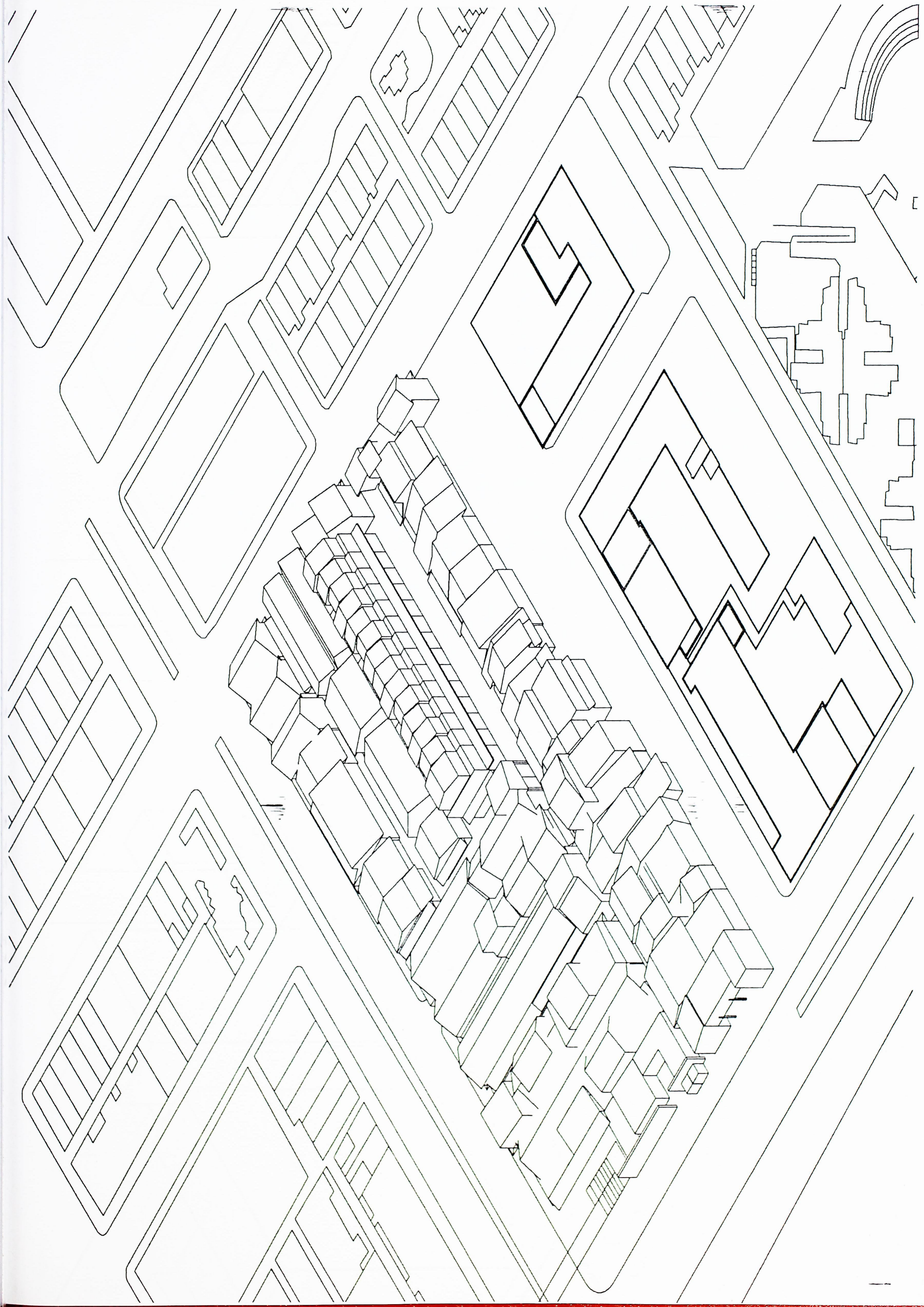




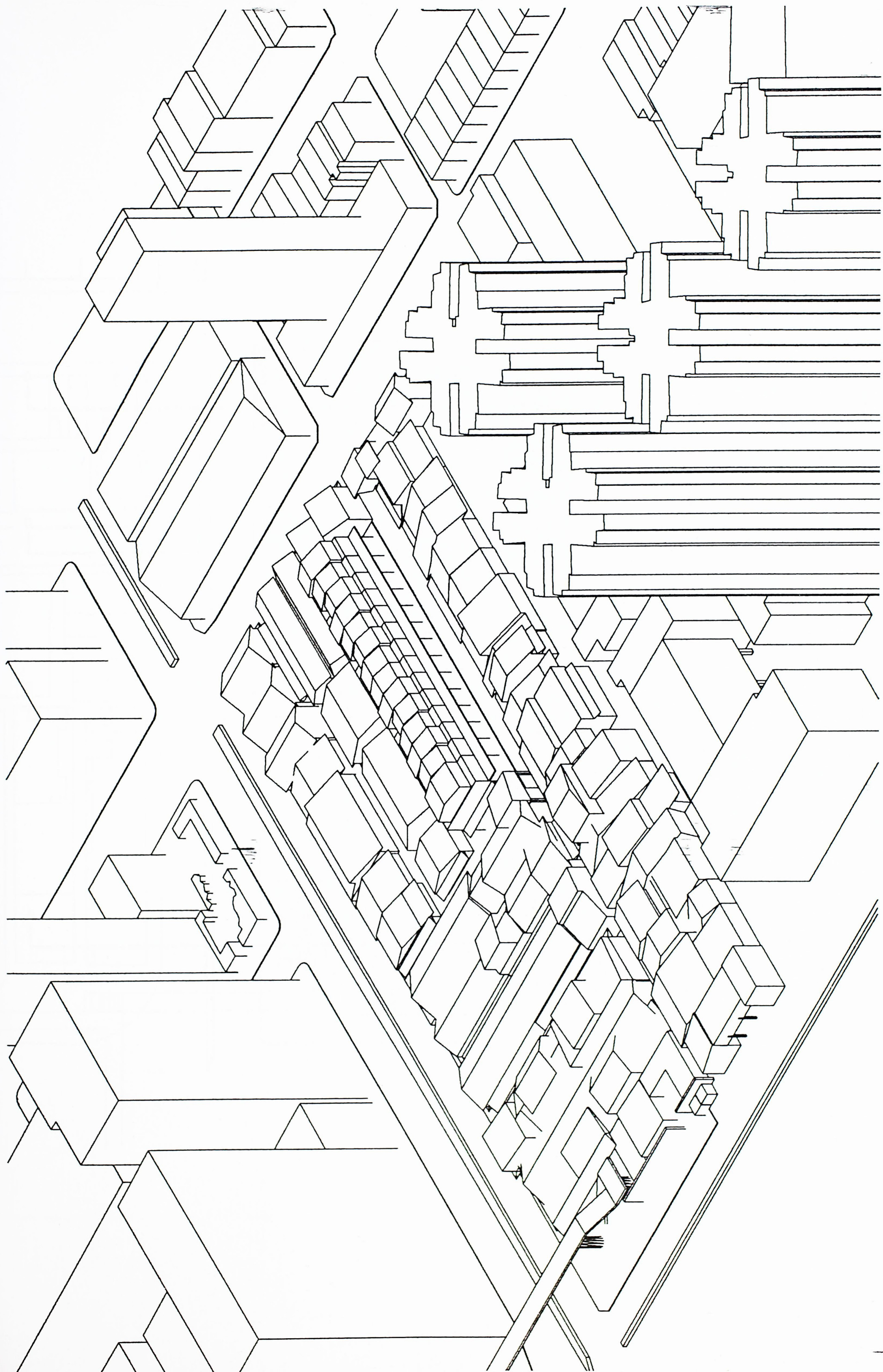
## Fruit Market

The wholesale fruit market has been operating in the neighborhood for over 80 years, supplying nutritious fresh fruit for Kowloon and New Territory. Wholsaling begins at midnight, but shut down during the day. Only a few stalls open for retailing in the morning. Although the market is due to move over to Cheung Sha Wan wholesale market complex in 2004, but the dispute between the traders and the government over compensation is still not settled at the moment.. Therefore, the market will continue to operate in the next three or four years. However, proposal for the market has been made for urban renewal in which most building will be demolished to make way for a new park and some of the old stone buildings will be preserved and renovated as a shopping arcade similar to Convent Garden in London.

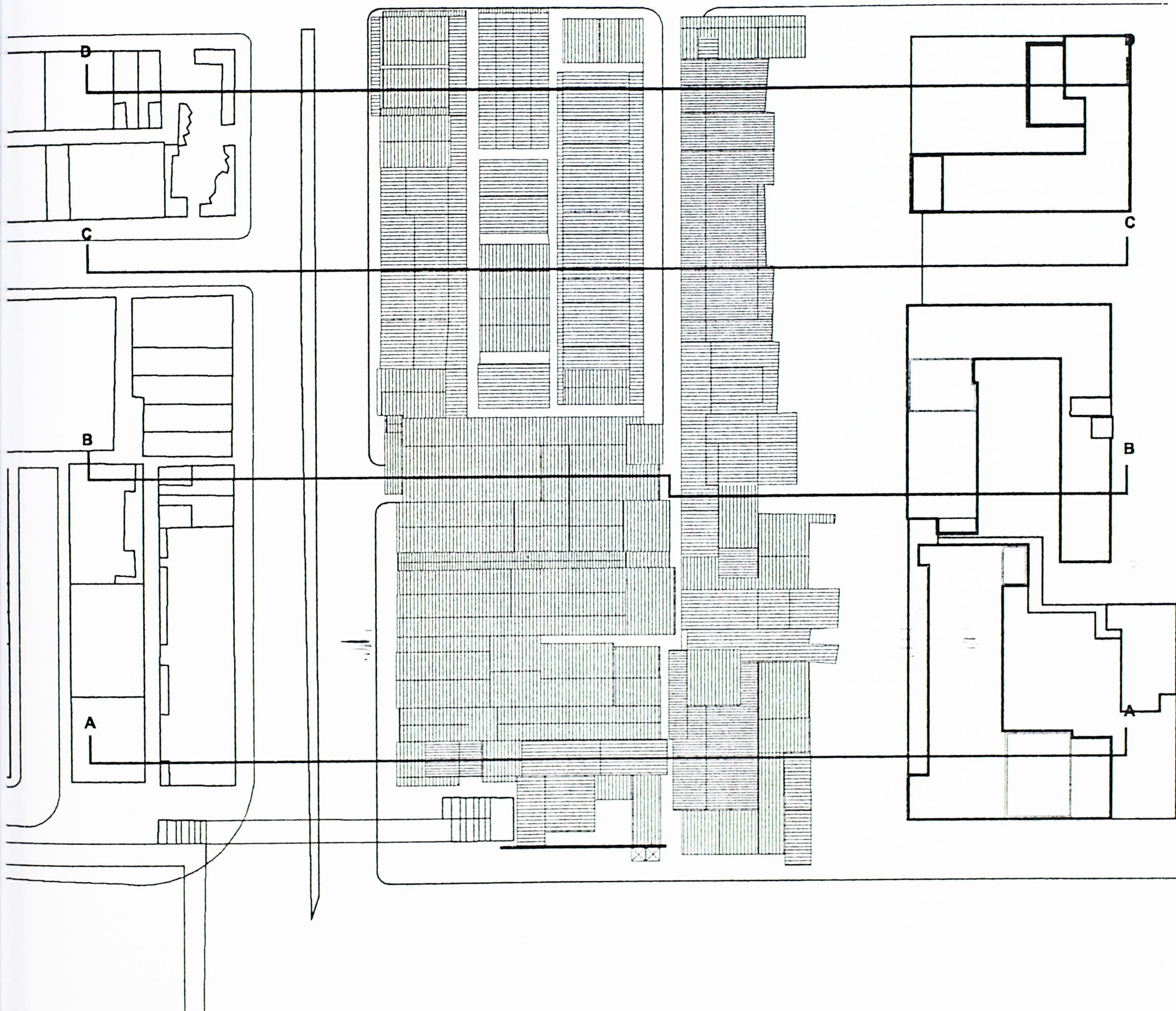
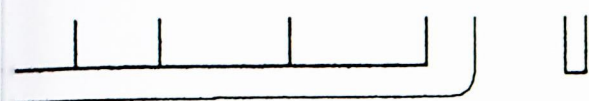
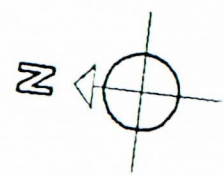




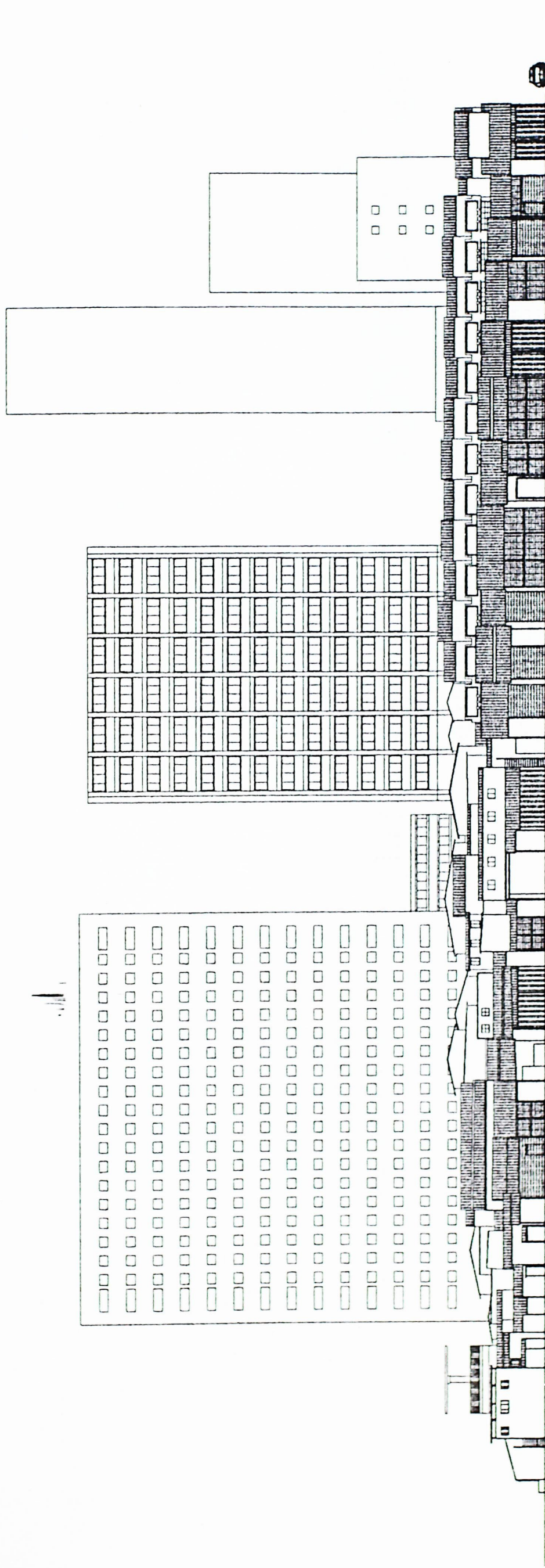




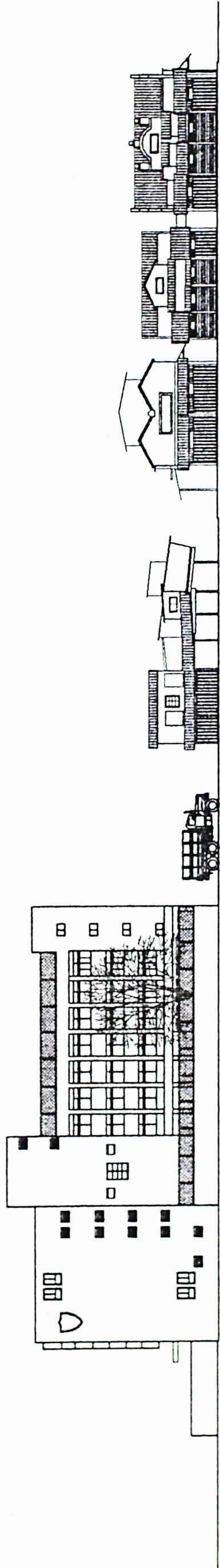






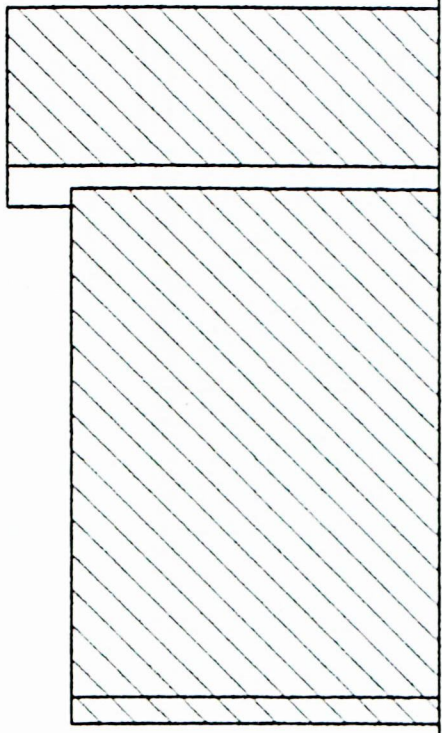
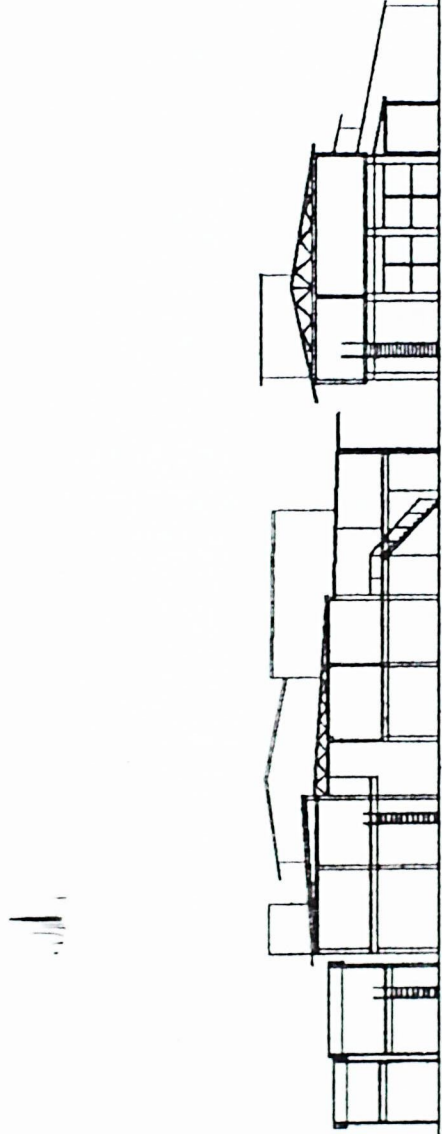
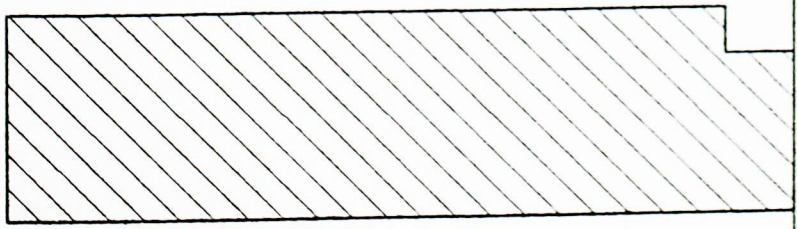
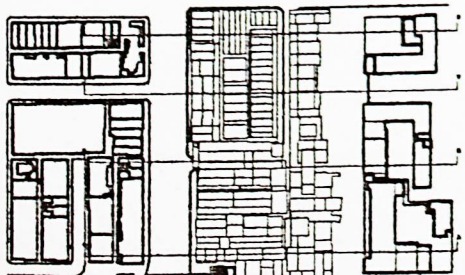


Elevation facing carpark

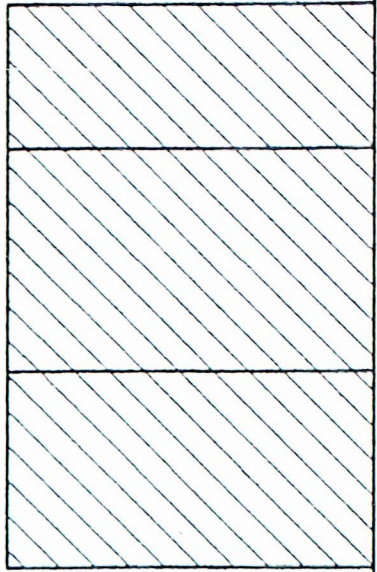
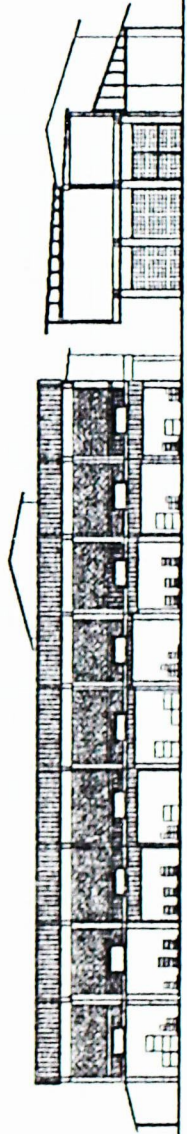


Elevation facing Reclamation Street



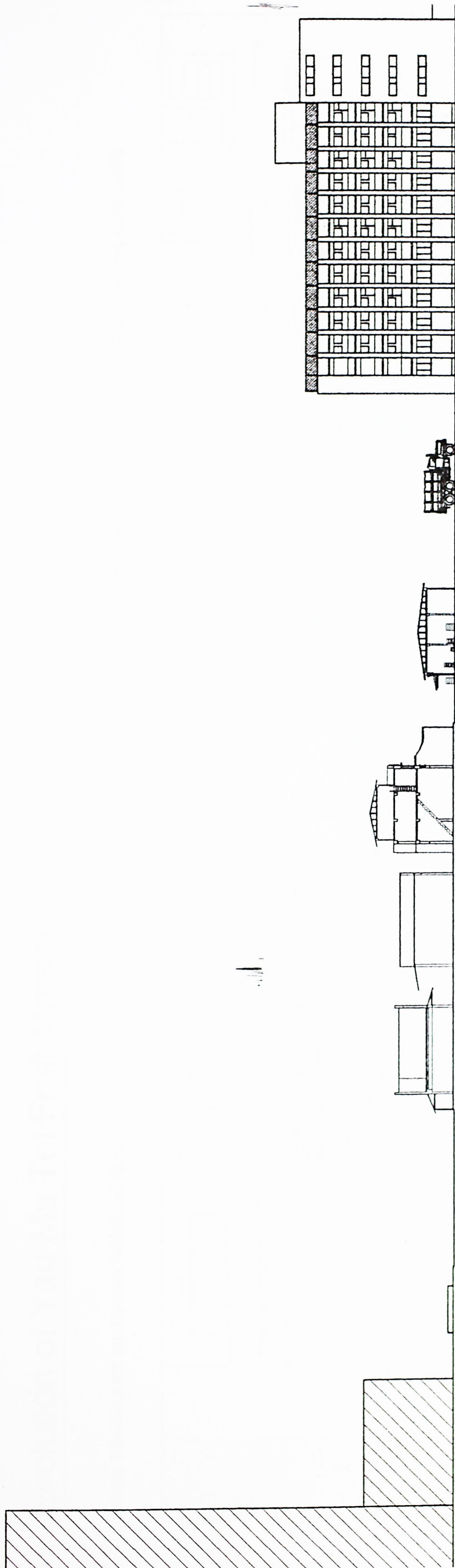


Section A - A

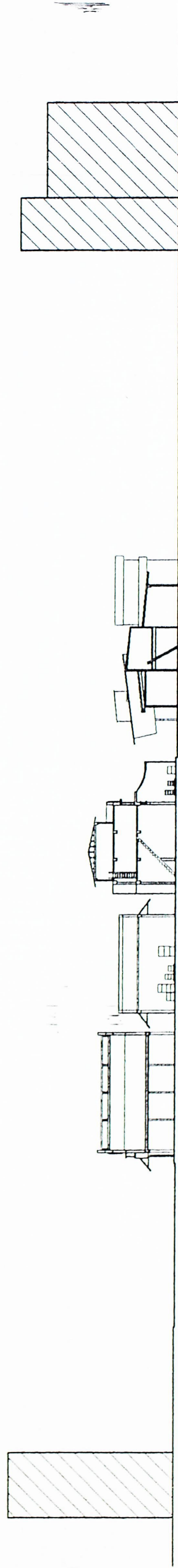


Section B - B





Section C-C (through Canton Road)

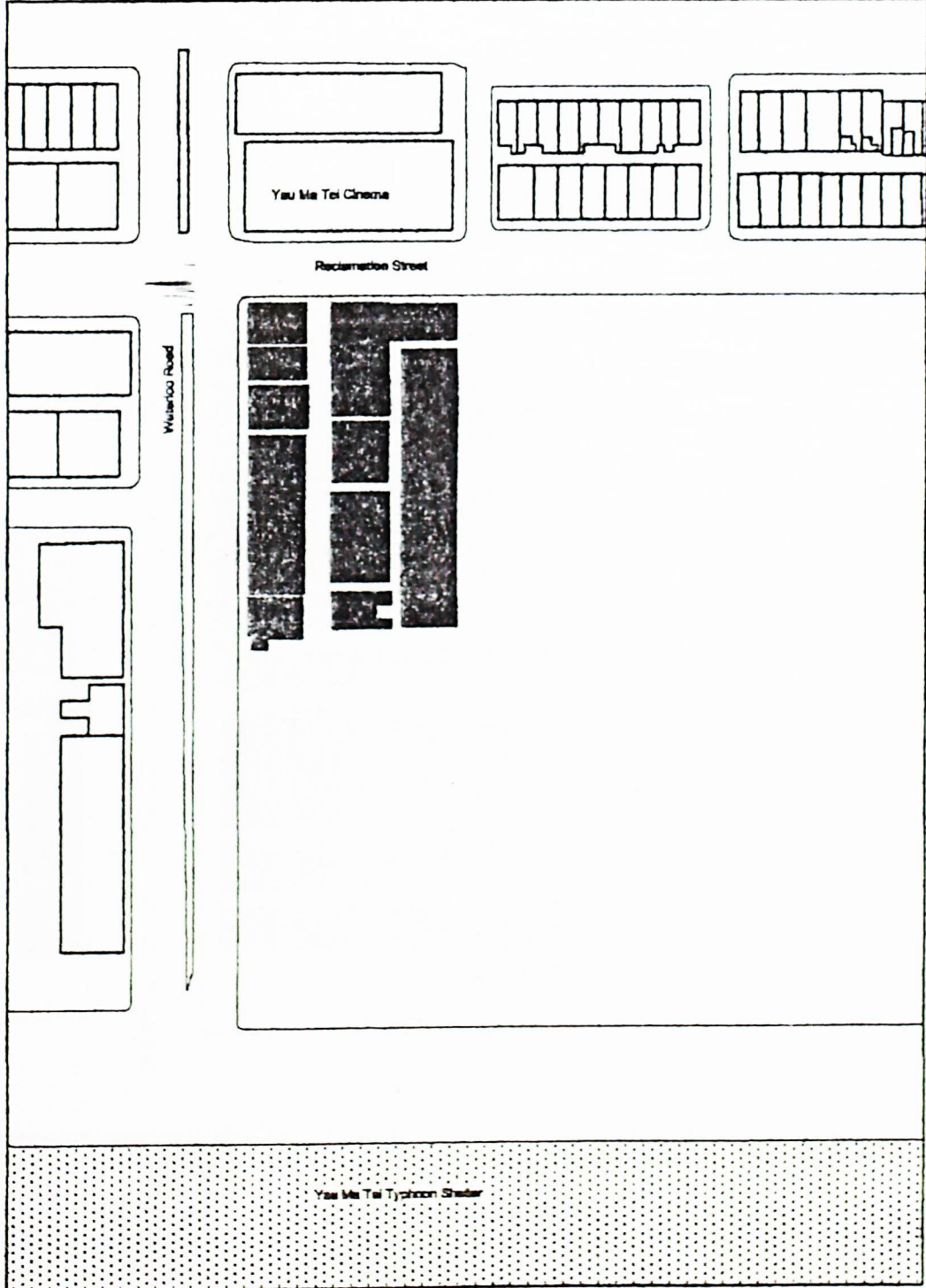


Section D - D



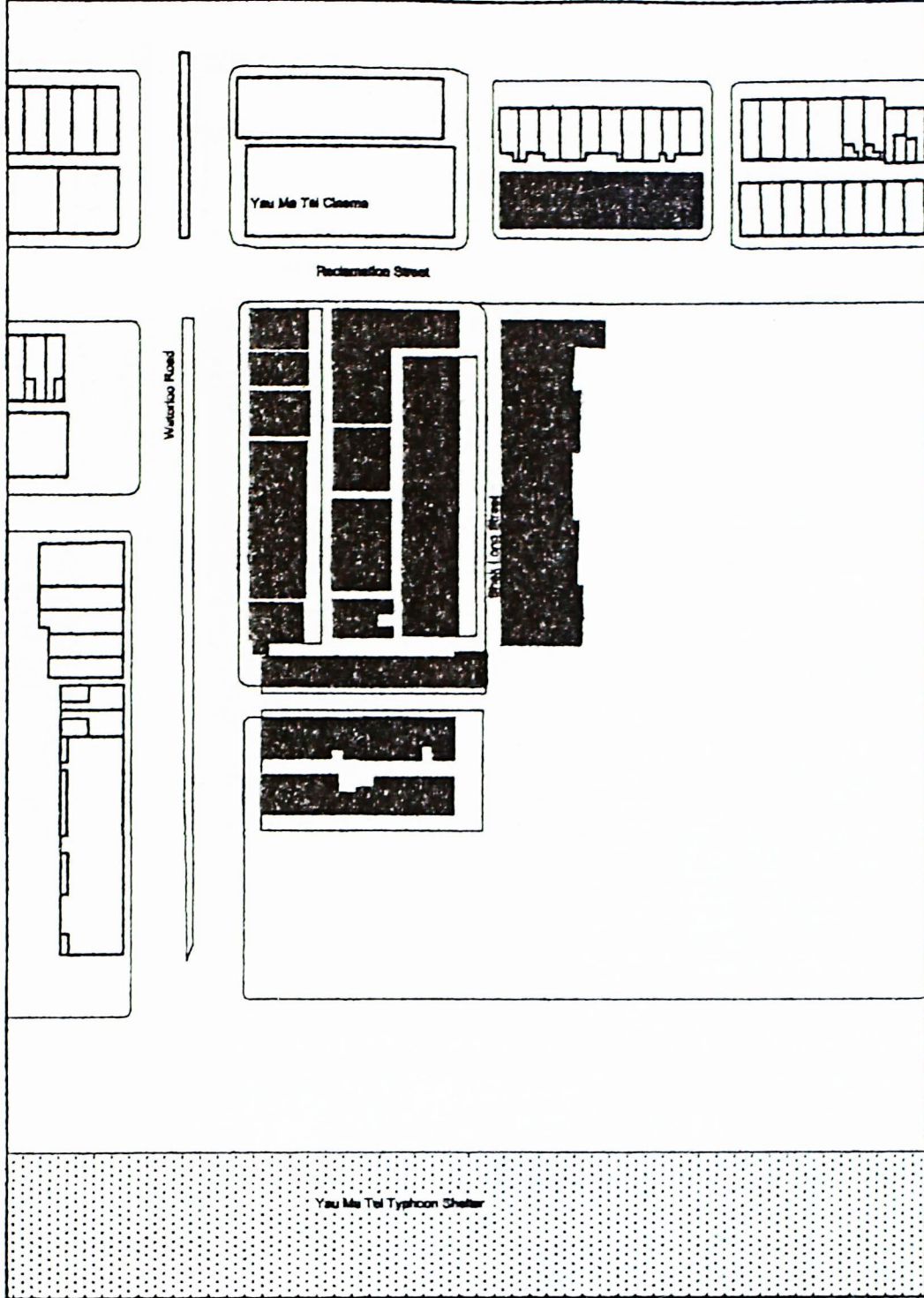
# Evolution of Yau Ma Tei Fruit Market

Stage 1 Settlement on the new reclaimed land



1. Upon completion of typhoon shelter in 1910s, traders began to settle on the new reclaimed land and the fruit / vegetable market was firstly built at the corner of Reclamation Street and Waterloo Road for the convenience of transportation. The stalls were built in stone / brick structure with traditional pitched roofs.
2. The fishermen community from the typhoon shelter provided labour forces for the market as well as the source of buyers.

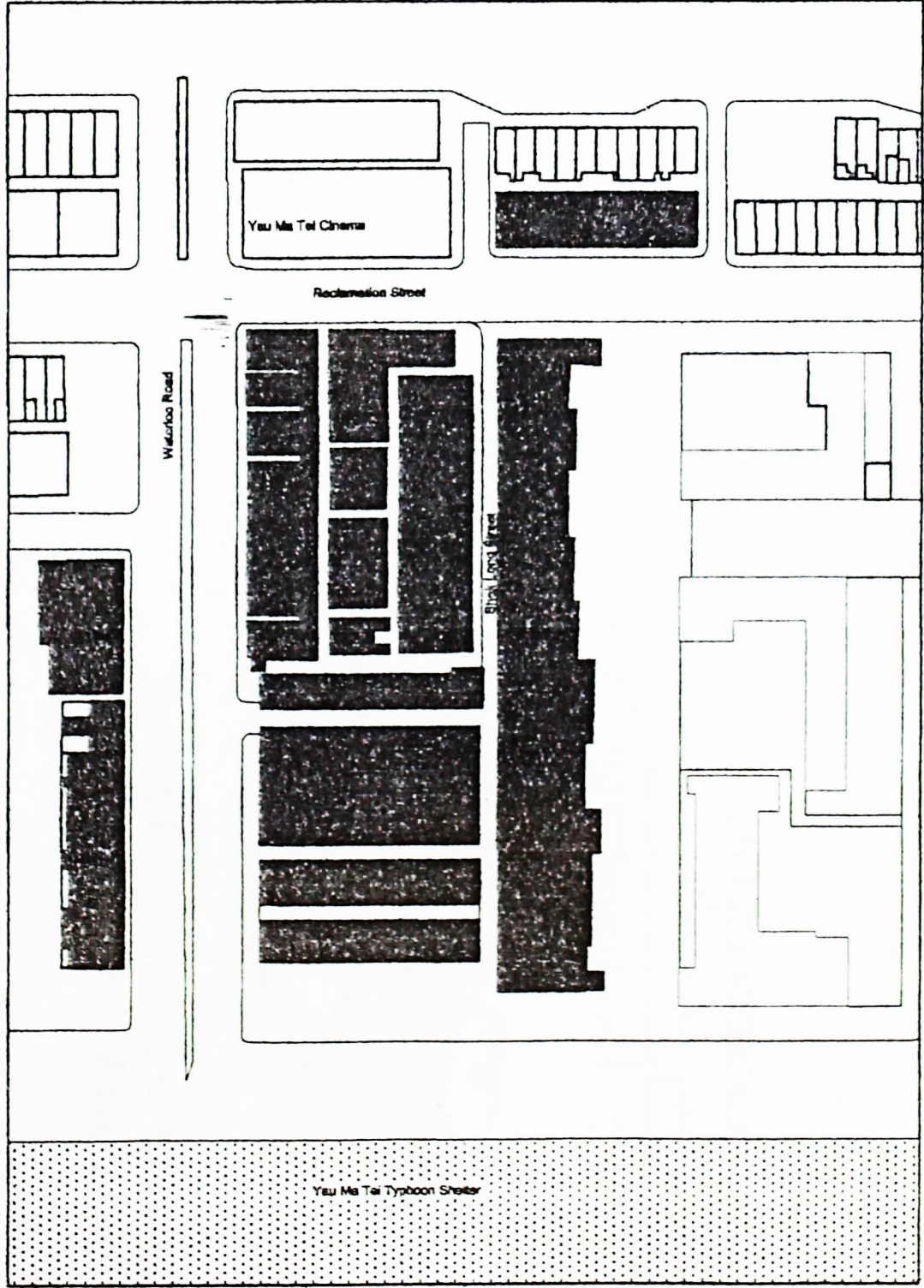
Stage 2 Entertainment / gathering place for land and fishing community



1. Expansion of fruit and vegetable market towards the typhoon shelter (the west) and the south had resulted in the formation of the primary shopping street - Shek Long Street and the secondary shopping arcades. Temporary metal structure were used instead of permanent stone / brick structures.
2. The wholesaler stalls began to spread across Reclamation Street
3. Together with the Yau Ma Tei cinema across the street, the market had become a gathering and entertainment place of the area.

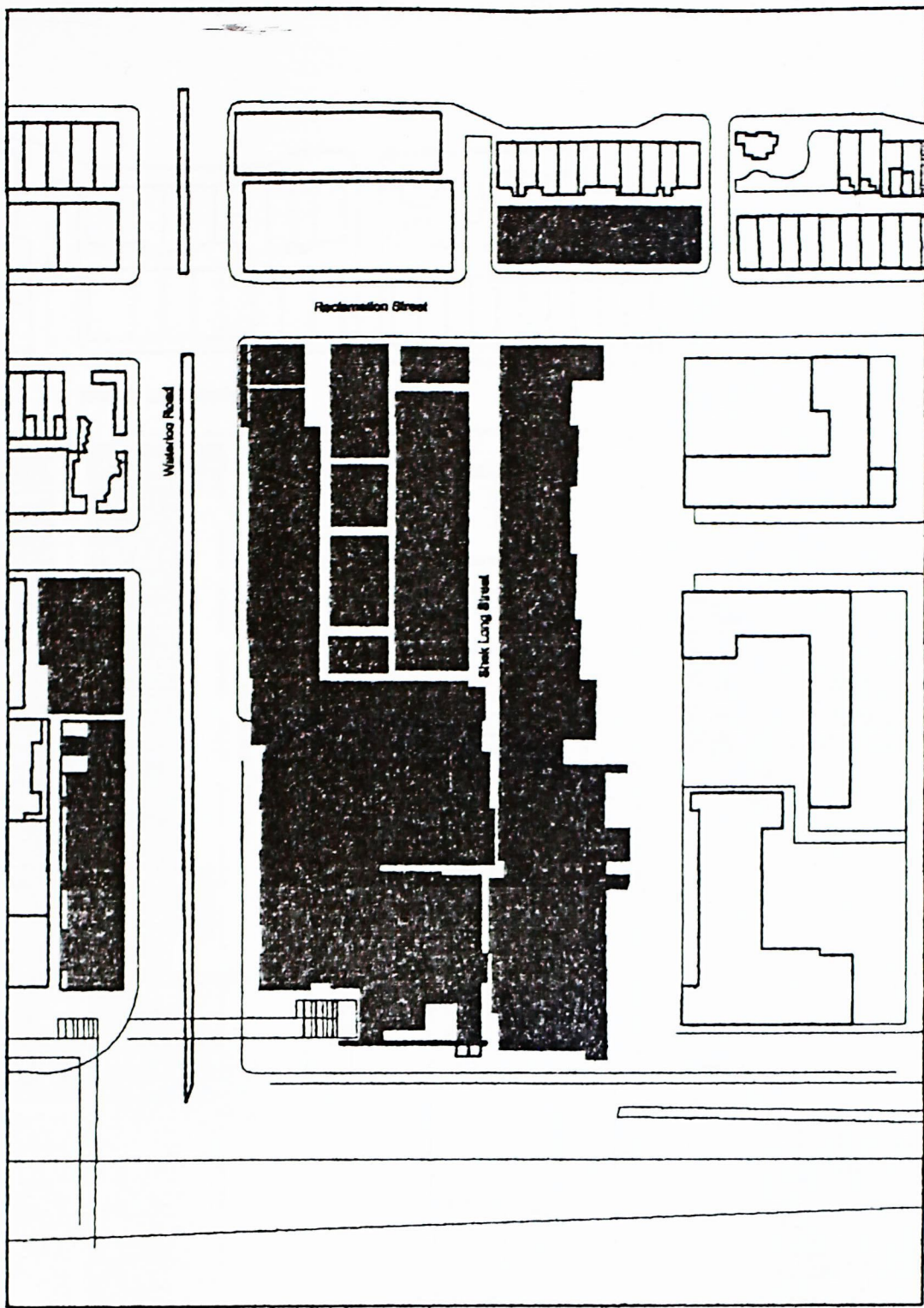


Stage 3 Settlement from typhoon shelter



1. The market continued to spread towards the typhoon shelter
2. People from the typhoon shelter began to take residence on land and joined the developed their own trades - some took up the fruit and vegetable wholesaling.
3. Three primary schools were built to replace the old chinese tenant buildings and this caused the end of the expansion towards the south.

Stage 4 Condensation and decay

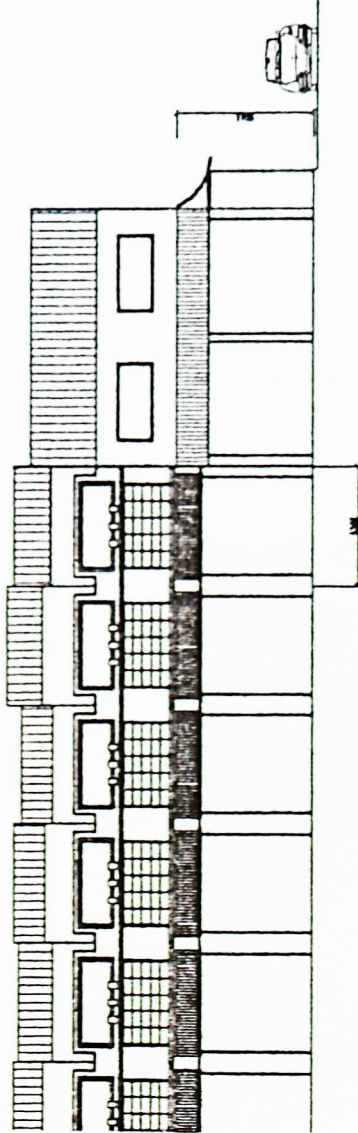
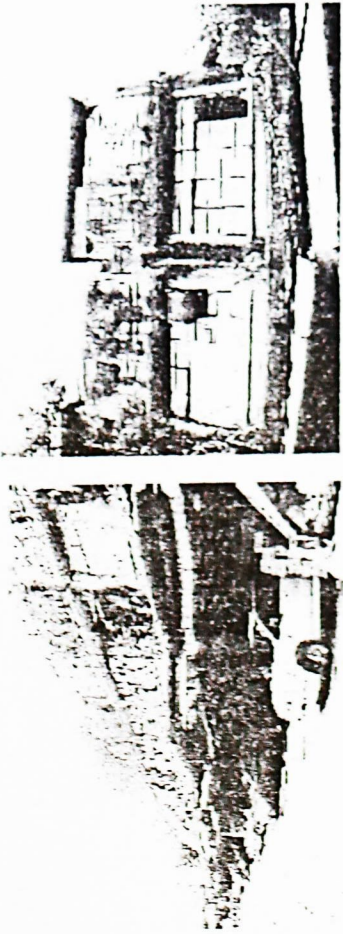


1. Spread of the fruit market gradually slowed down and finally came to an end. The existing market now has over 200 wholesaling stalls.
2. The closure of typhoon shelter in 1992 had caused the final settlement of the fishermen community in the fruit market. The lack of space on the ground meant that additional space has to be built on top of the existing structure.
3. West and north source of life are blocked from coming to the market

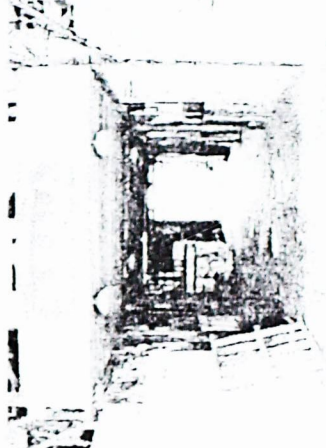
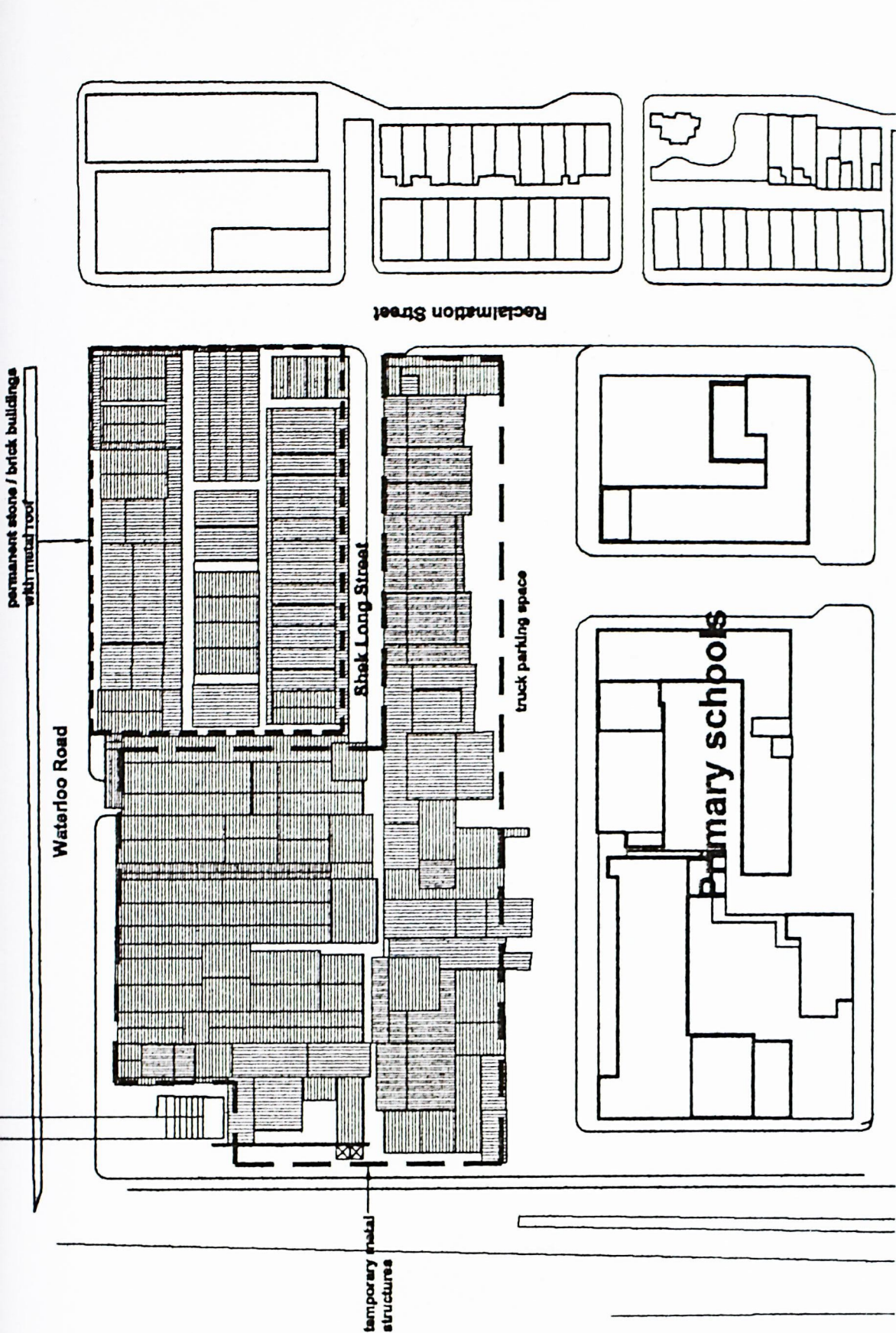


# Site study: Fruit Market

Three-storey stone / brick buildings in Shek Lung Street



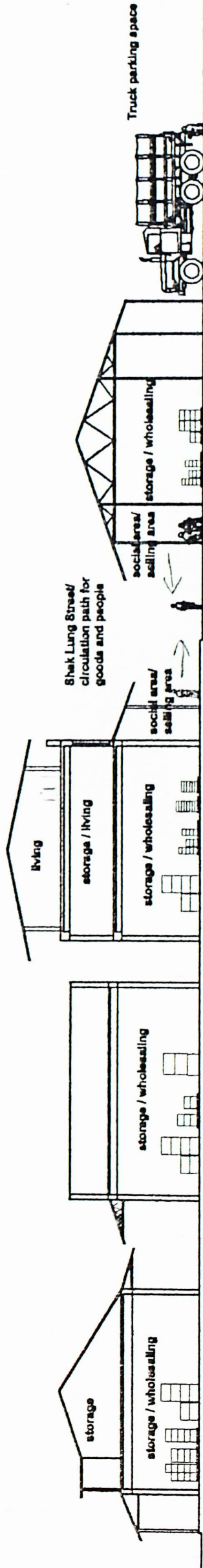
shopfront elevation on Shek Lung Street



Shop front of temporary structure on Shek Lung Street



Back of shop on parking space

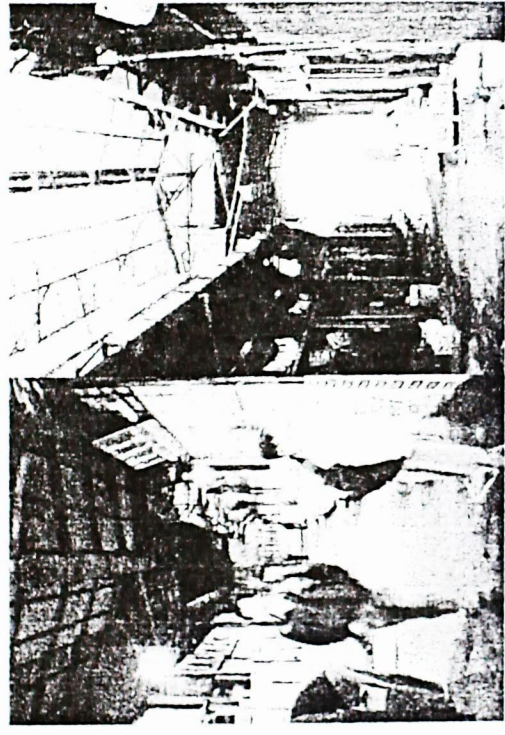


cross section through Shek Lung Street

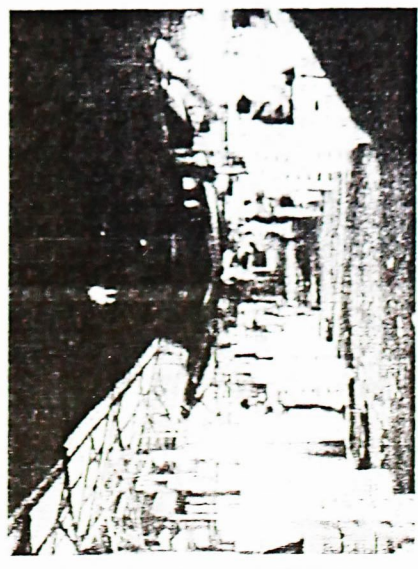
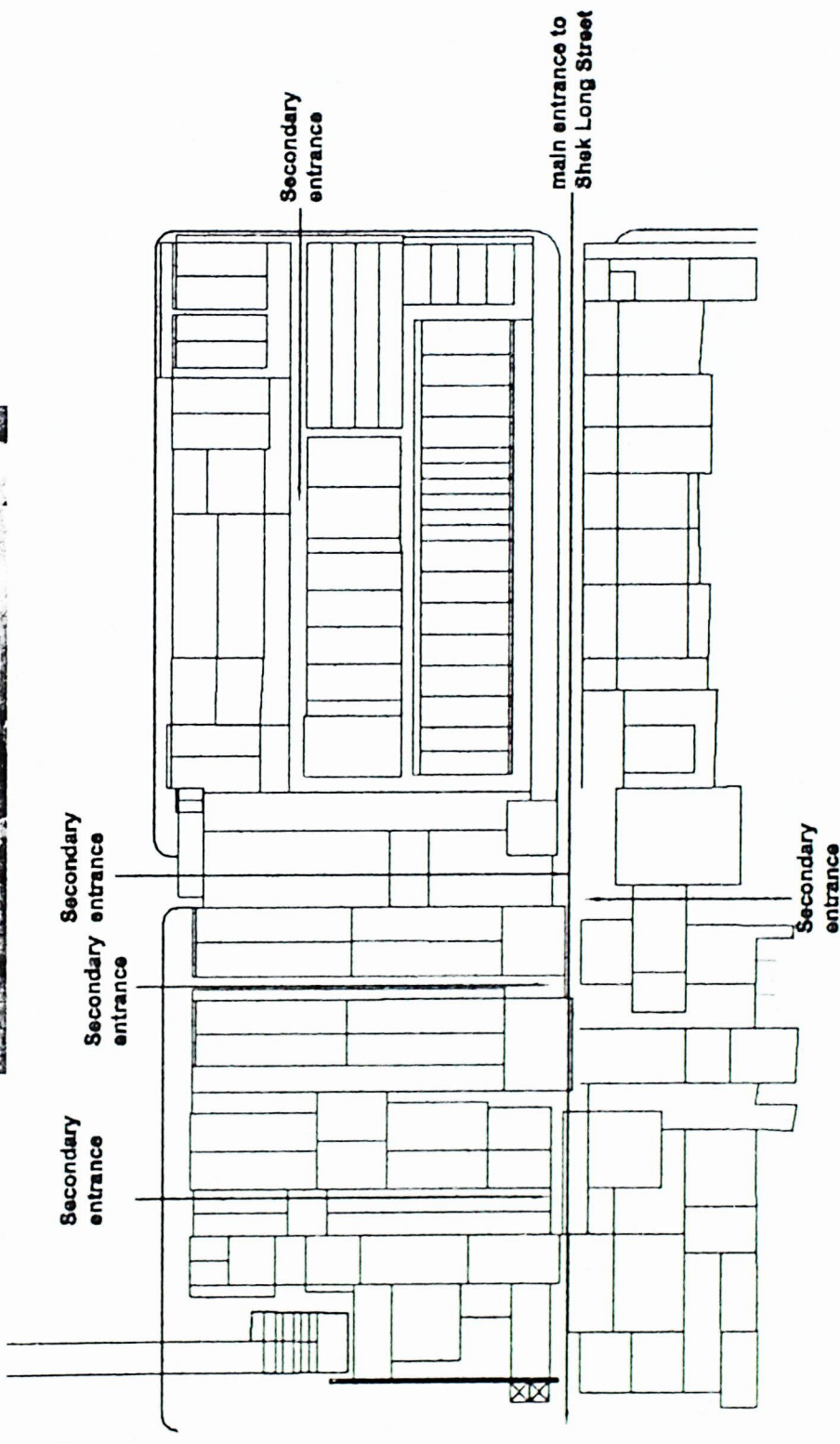


# Site study: Fruit Market

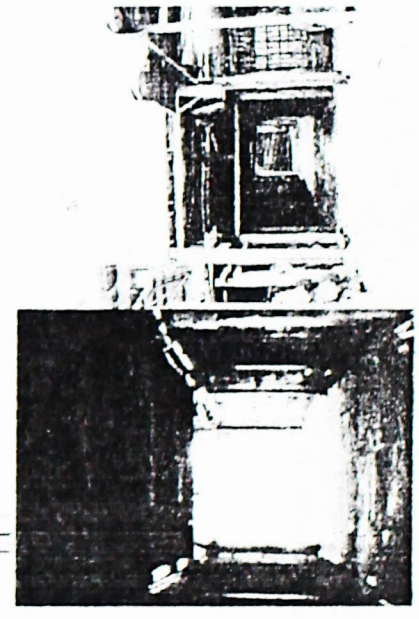
## Circulations



Shopping arcade for the retailers



Busy main street

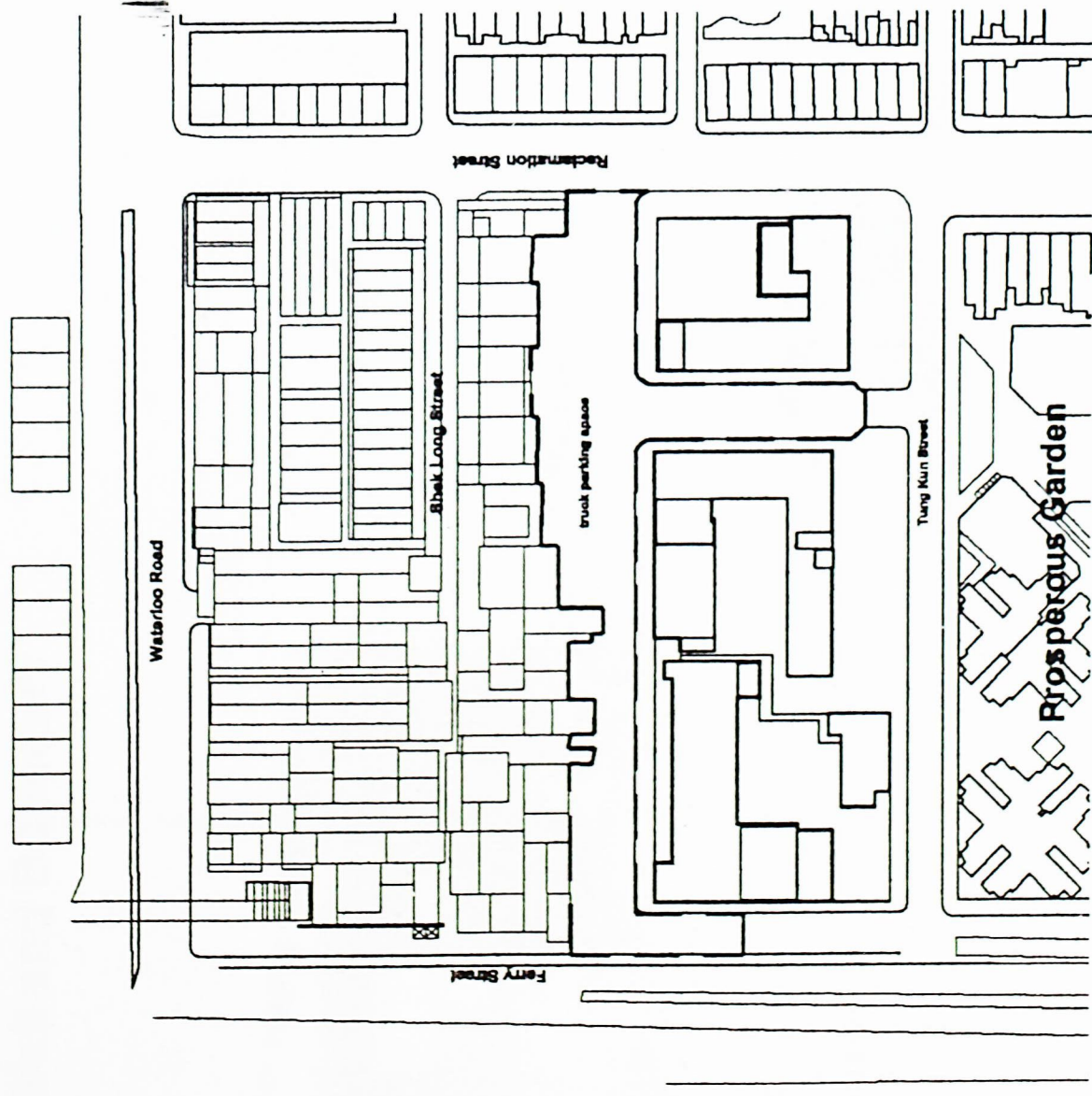


Loading / unloading area



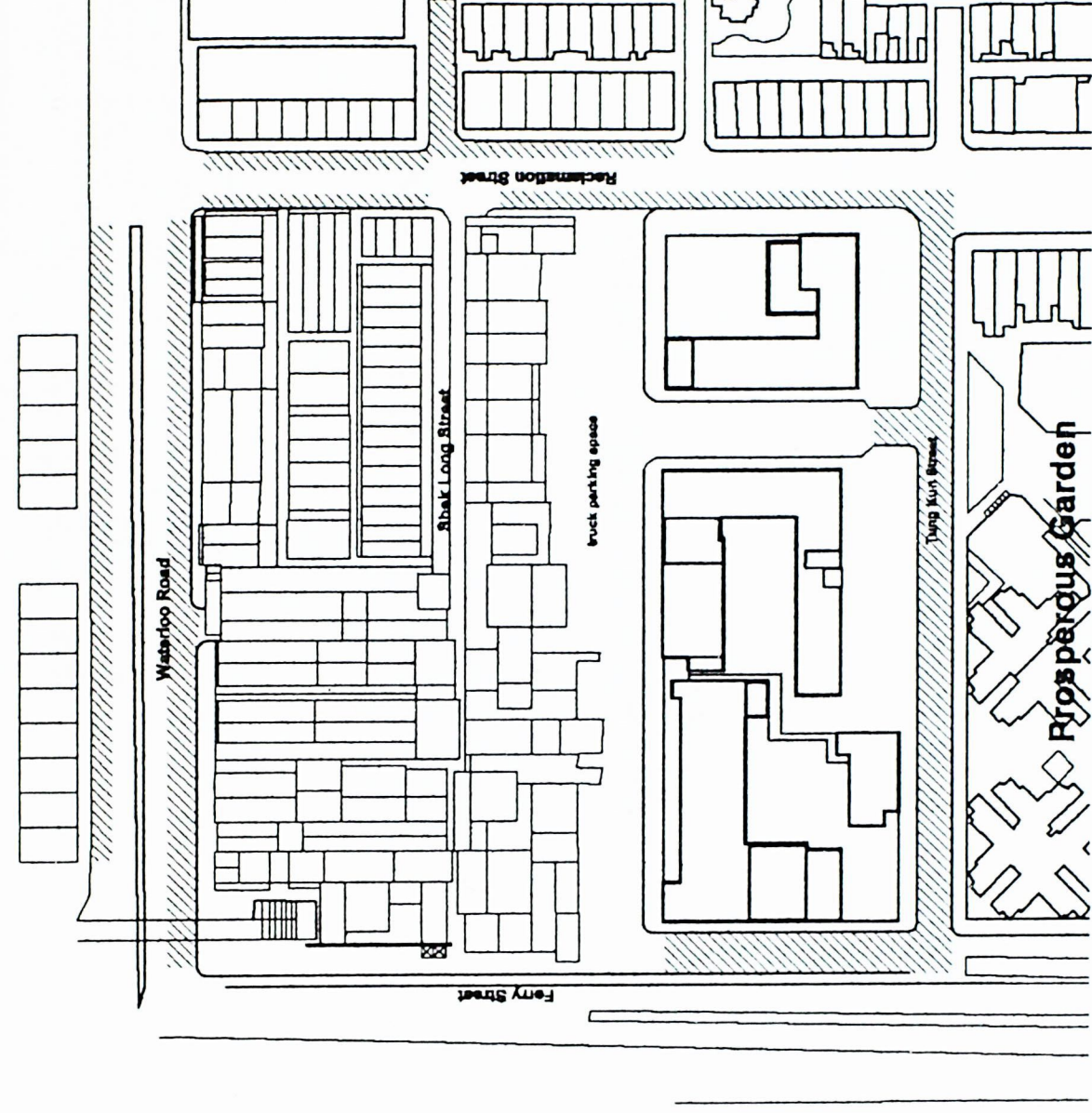
# Site study: Fruit Market

## Truck parking and loading area

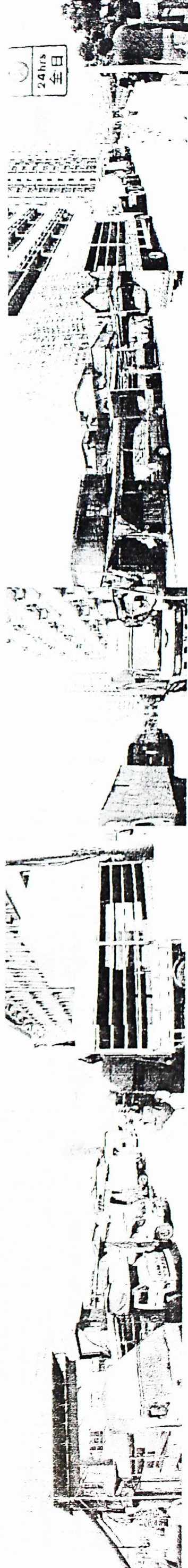


Truck parking area

The existing truck parking area is taking up the whole street in-between the market and the primary schools. The space is heavily congested during the day since the trucks parking there are mainly from the retailers and they block out most of the space. Larger trucks are impossible to get closer to the market for unloading and they are forced to park along side Reclamation street and Waterloo Road where the main traffic is seriously affected.



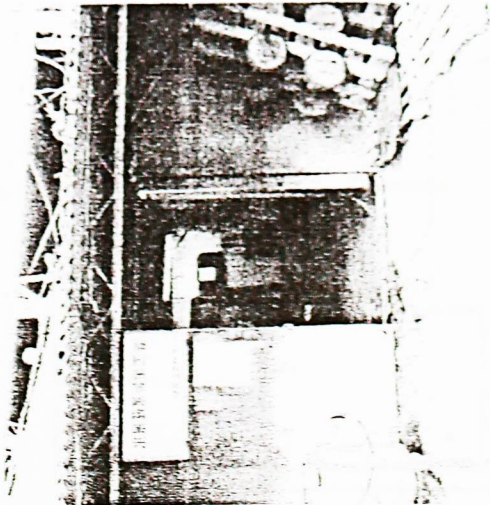
Trucks' loading / unloading area



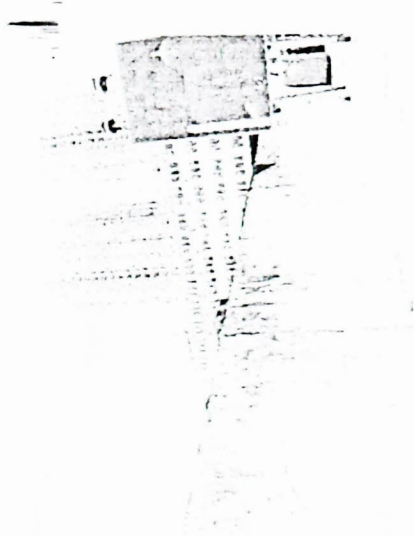


# Site study: Fruit Market

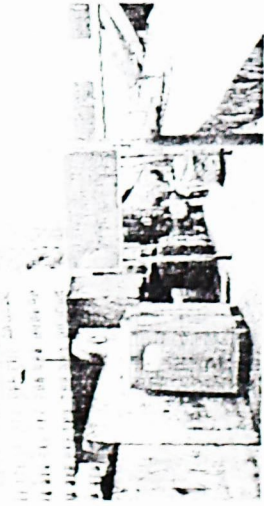
## Wall and Boundary



Trade Union

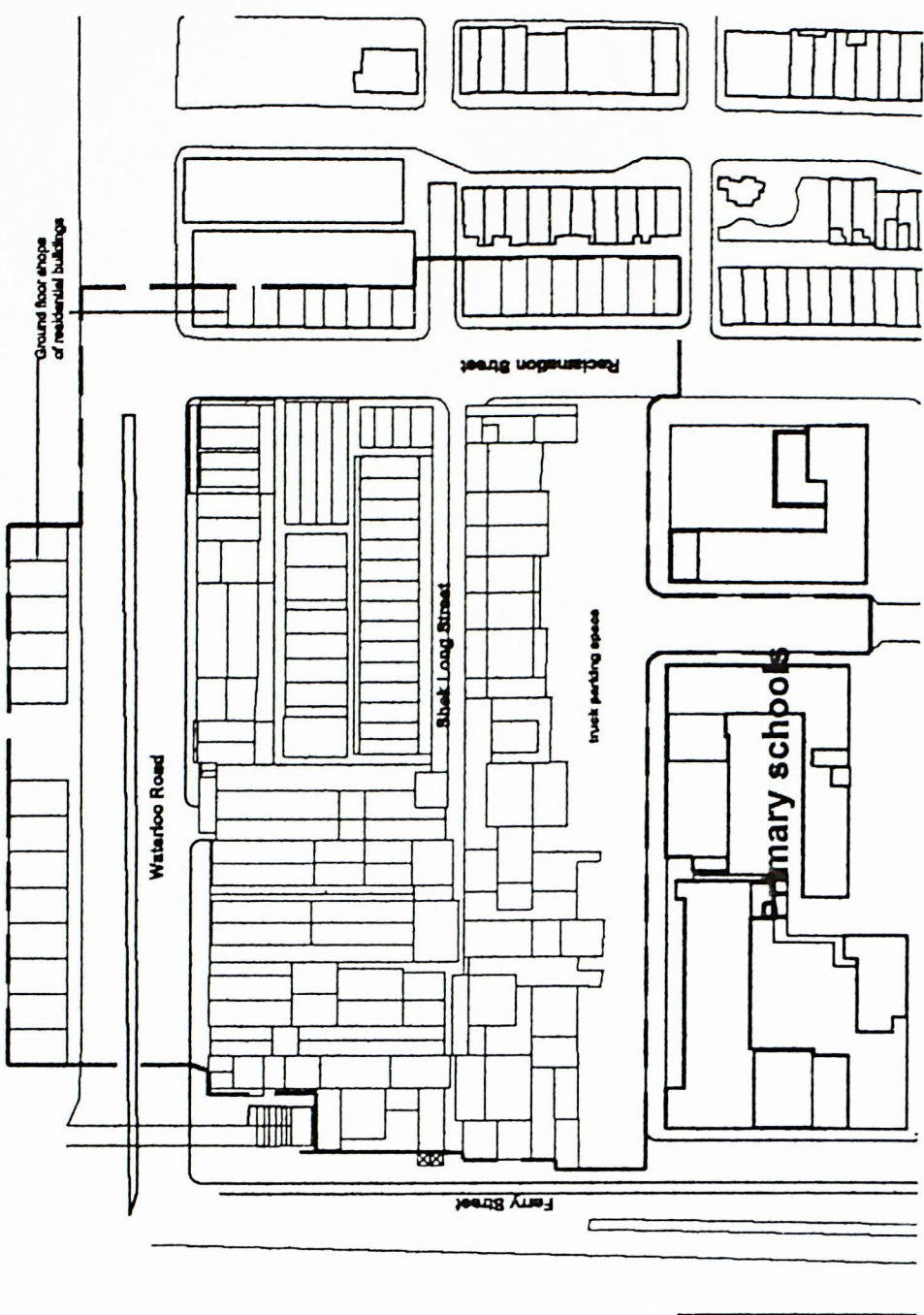


The wall

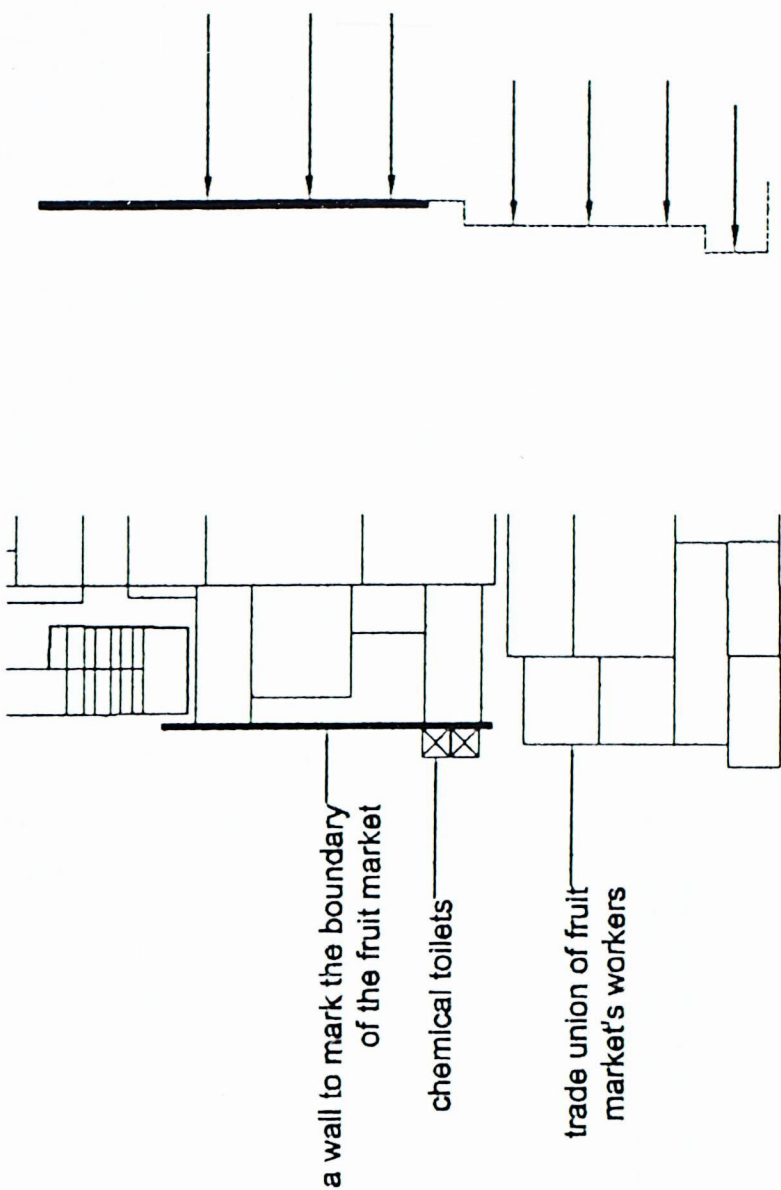


Two chemical toilets

The fruit market has no clear boundary except for the side on Ferry street where there is a wall built in front of the trade union. The chaotic temporary structures on this side of the market show that a marked boundary set by an architectural element have provided an opportunity for the market to colonize all the possible spaces within the marked boundary whereas the rest of the market have expanded and spreaded out in a slow and gradual process. **Stretching the limit of the wall / marked boundary is a natural response of this self-organised community.**



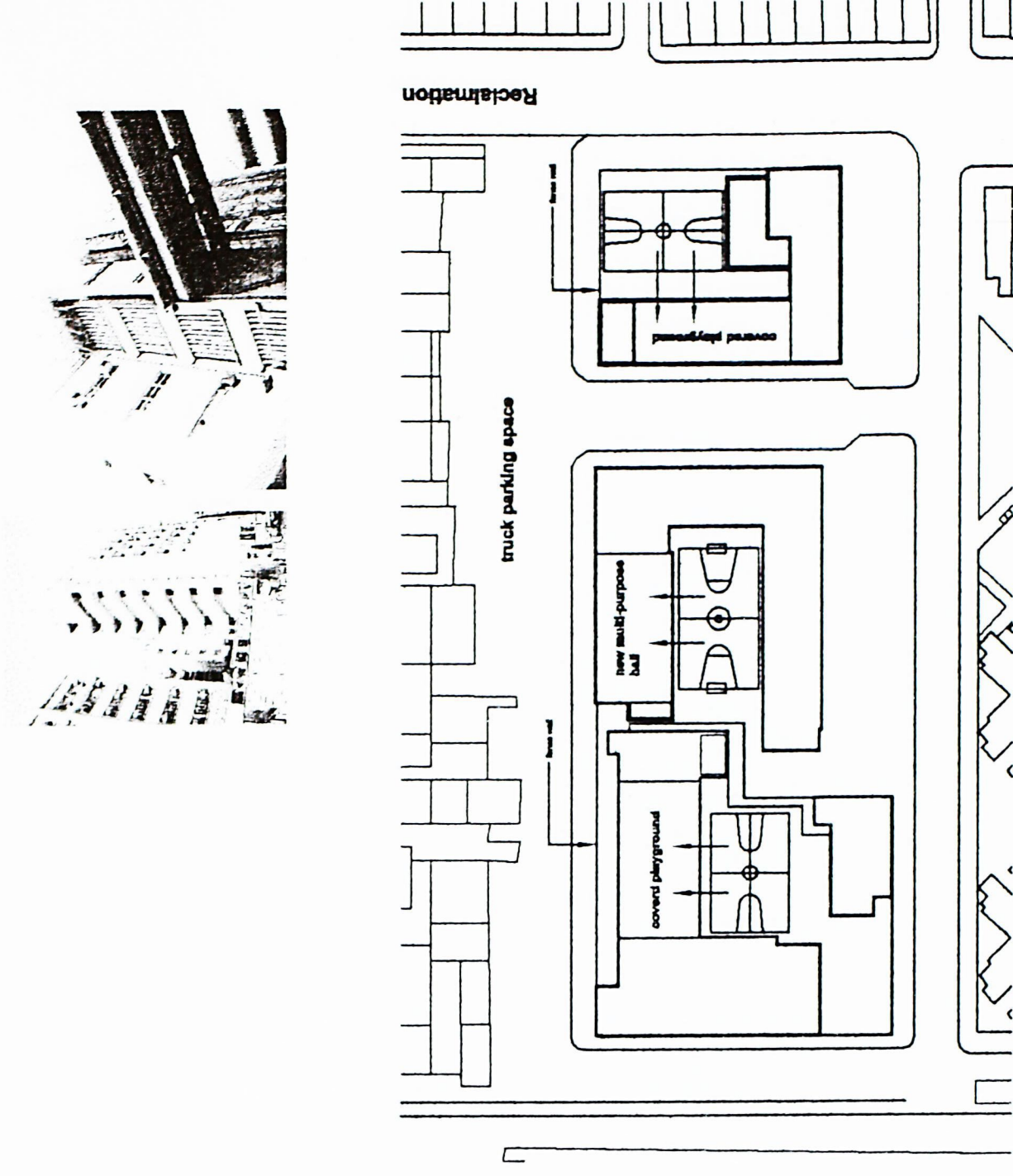
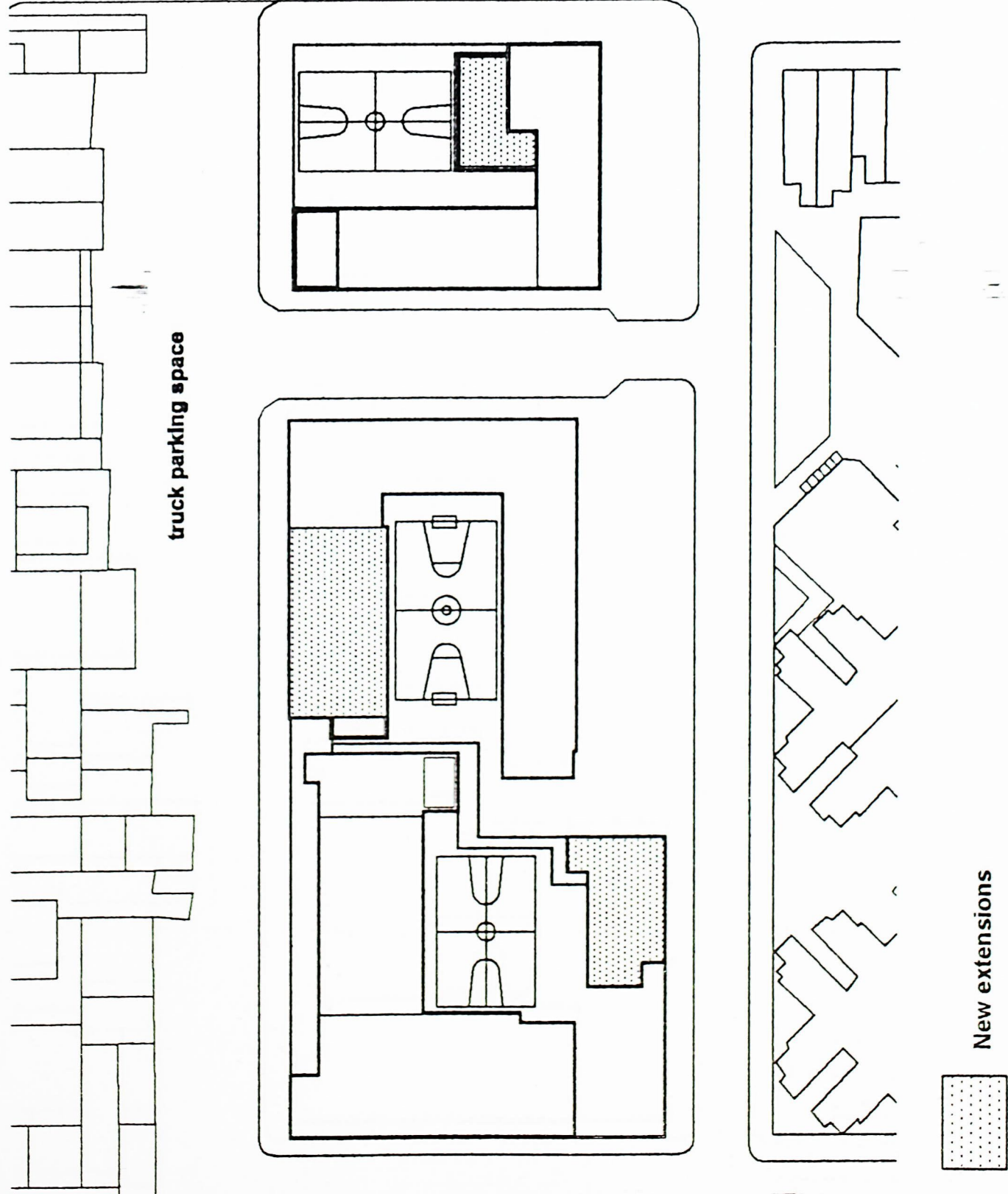
Existing boundary of the market





# Site study: Primary Schools

## School Playground

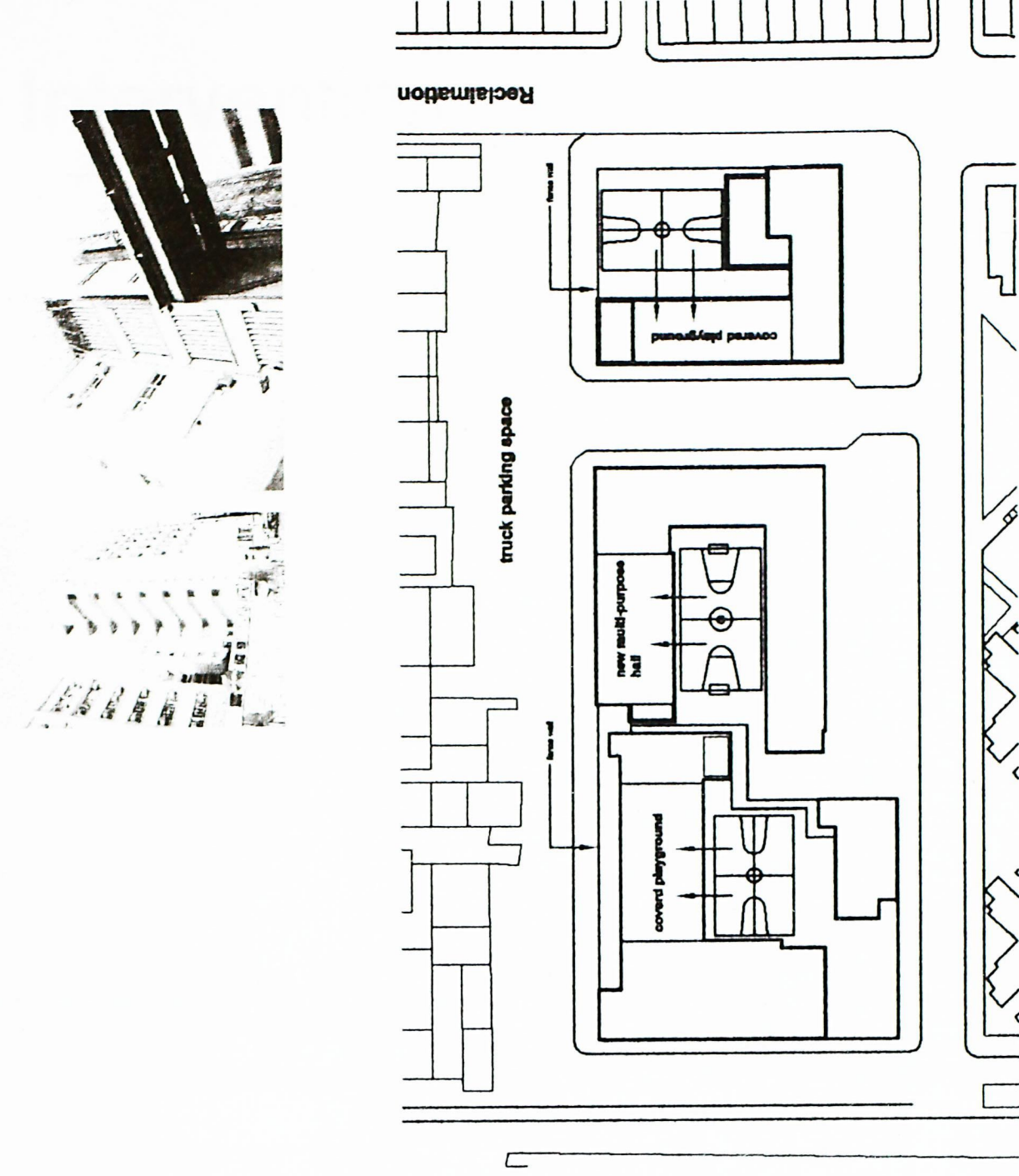
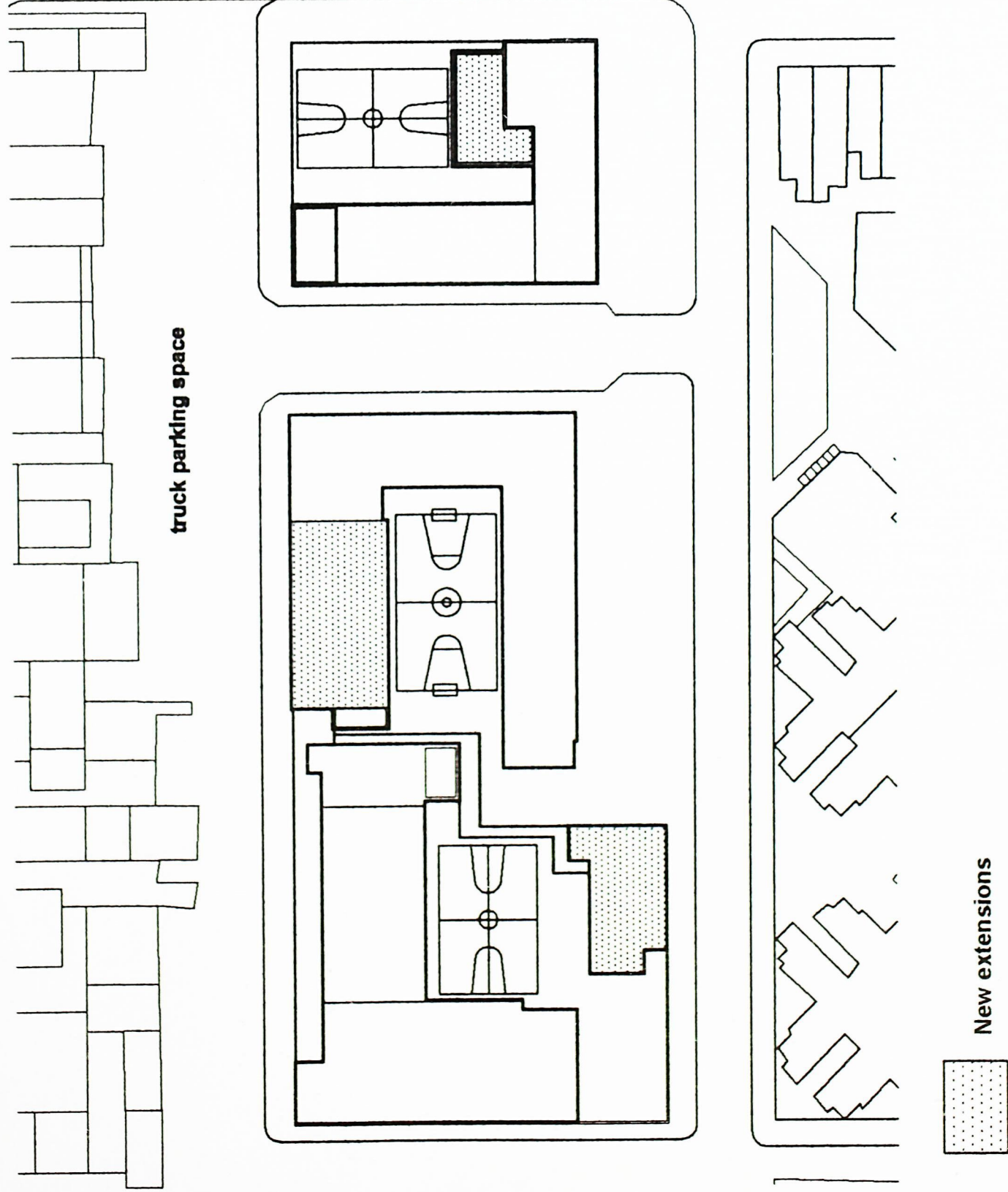


All three primary schools have new extensions consisted of new computer lab., multi-media teaching room and special teaching rooms constructed in the last few years. The new blocks further minimize the existing open air playgrounds of the schools. However, this is compensated by providing new covered playgrounds which are directly linked to the open air playgrounds.



# Site study: Primary Schools

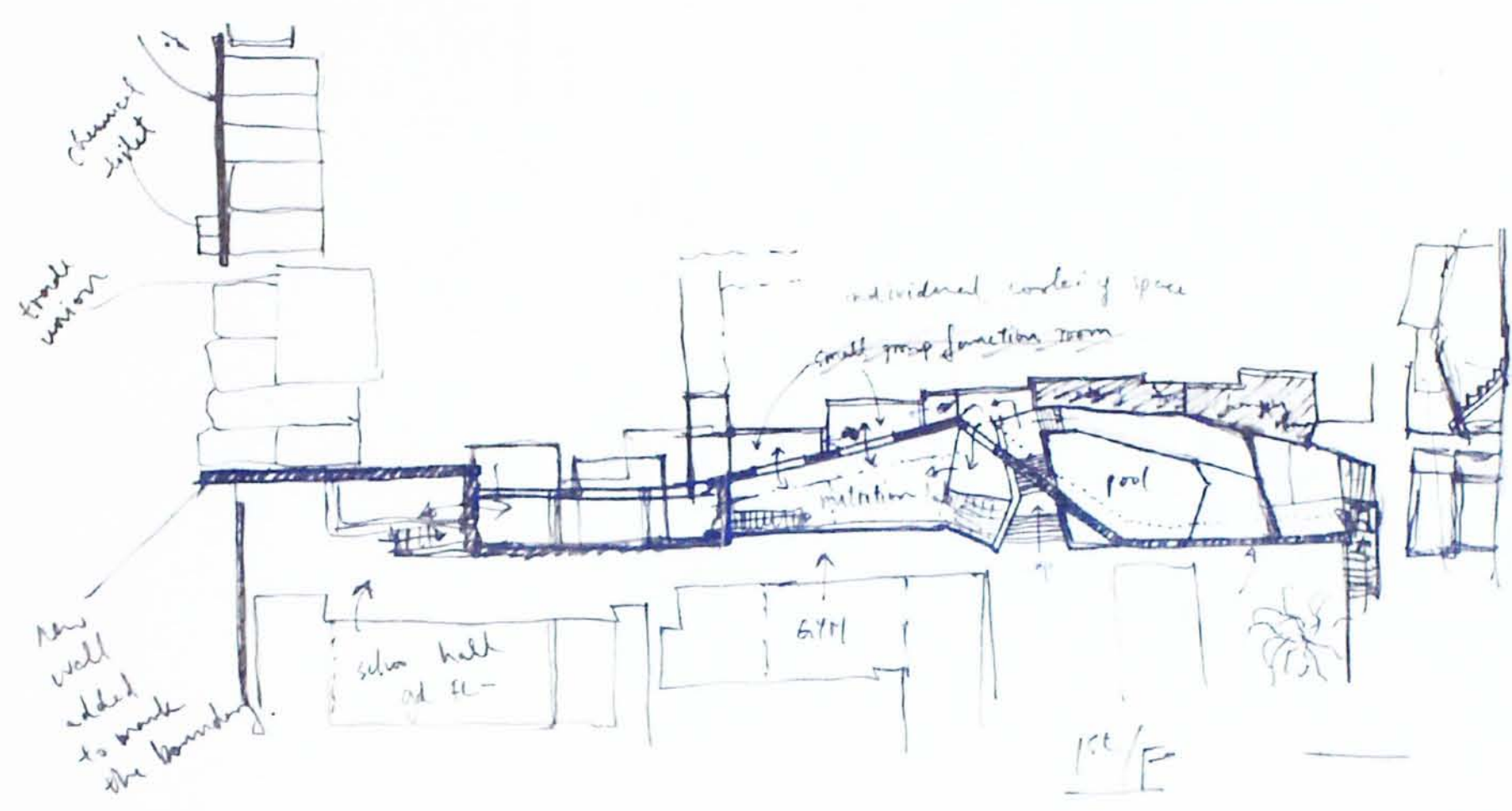
## School Playground



All three primary schools have new extensions consisted of new computer lab., multi-media teaching room and special teaching rooms constructed in the last few years. The new blocks further minimize the existing open air playgrounds of the schools. However, this is compensated by providing new covered playgrounds which are directly linked to the open air playgrounds.

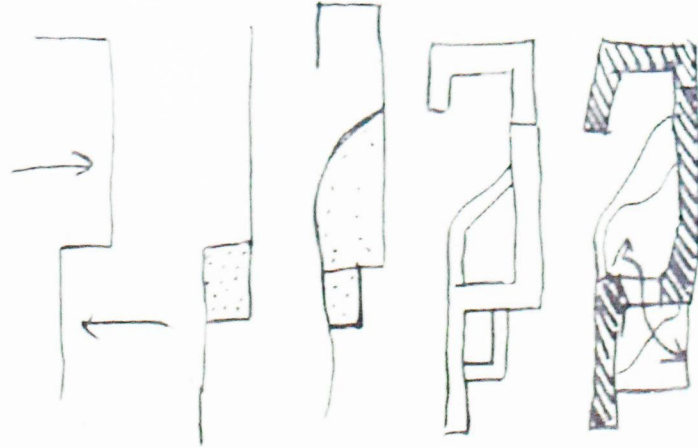


# 04 Design Intervention



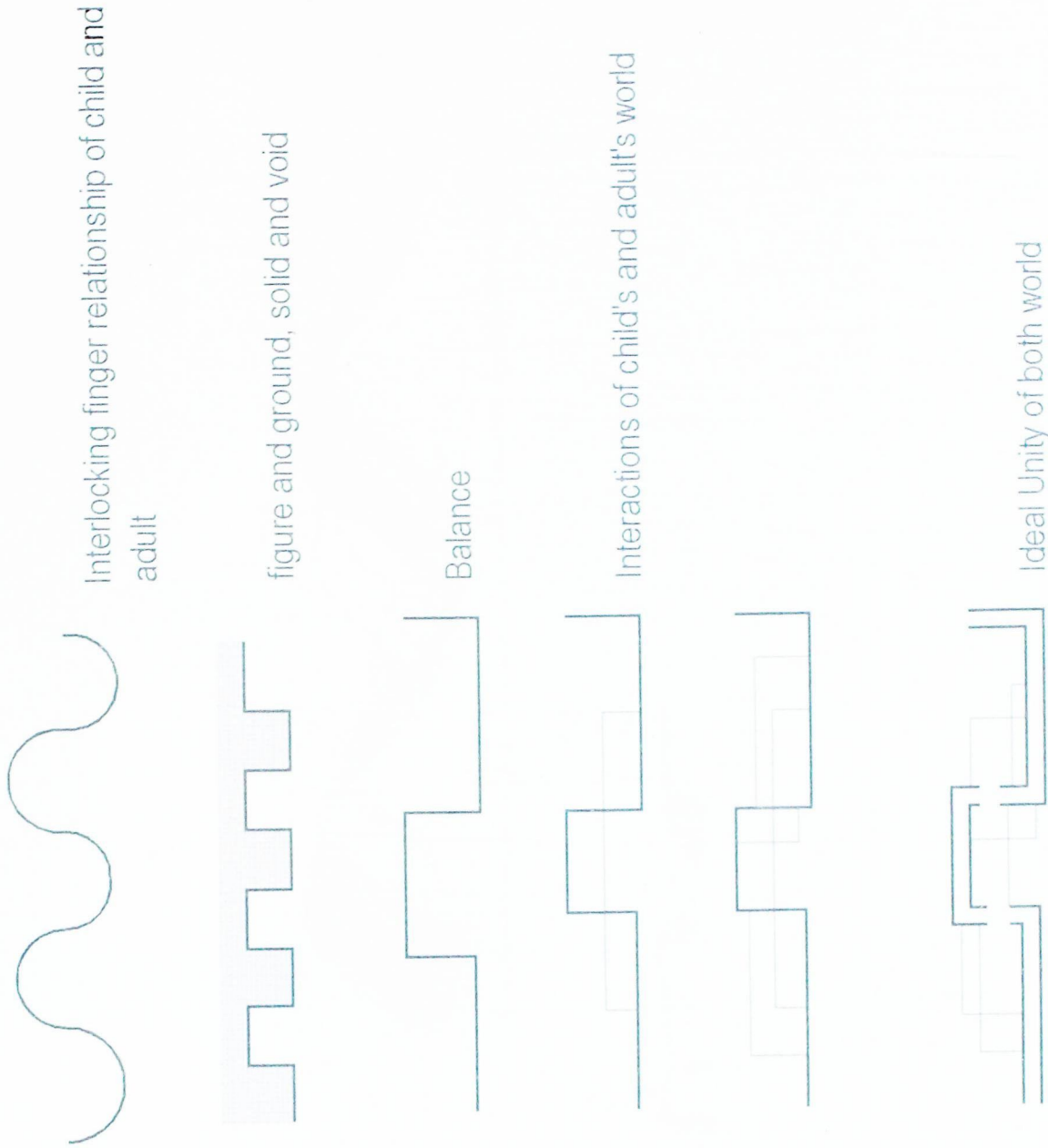


# Finger Diagram - Struggle, Balance and Interlocking



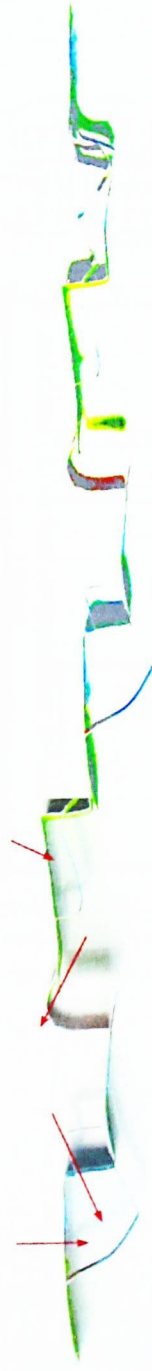
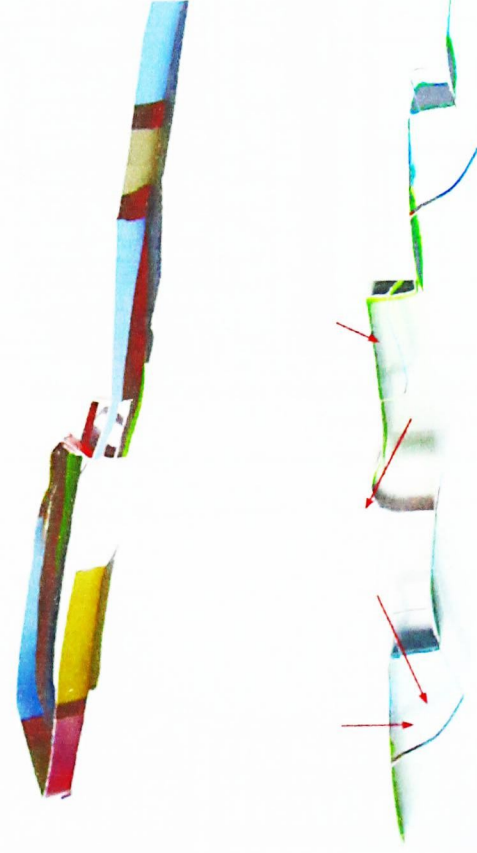
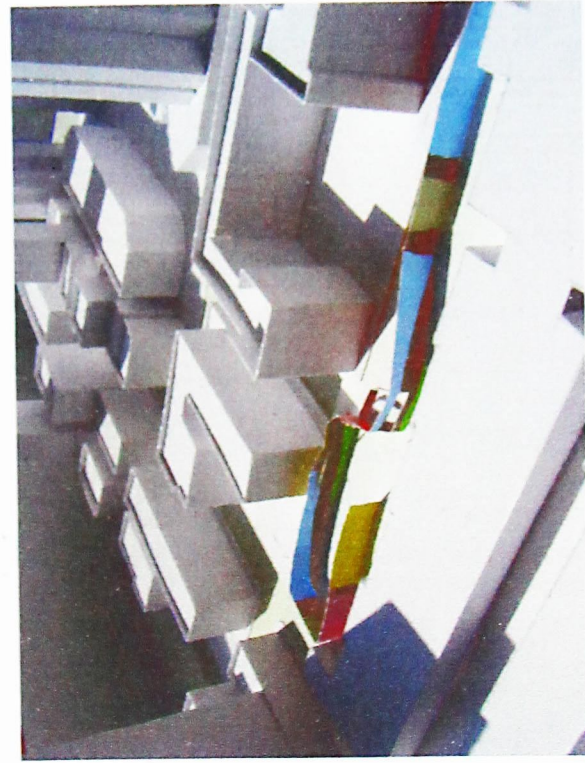
Play is children's way of struggling for control over their life. Their personal interests are always against the interest of the society which requires them to behave in the so-called right way. This conflict of interests between children and the society continues to exist throughout the process of growing up.

However this conflicting nature of play can also be seen as a way of balancing the development of personality. It is ideal for them not to work against the society but to contribute to it without losing their personal interests. The architecture should achieve a balance between the two worlds and encourage their interactions.





# Conceptual Models

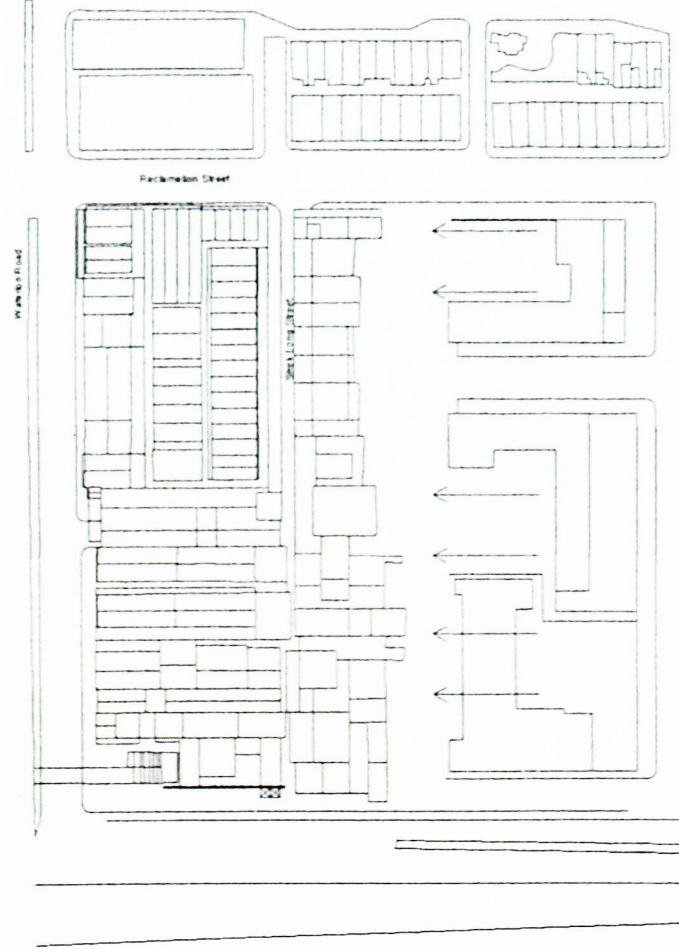




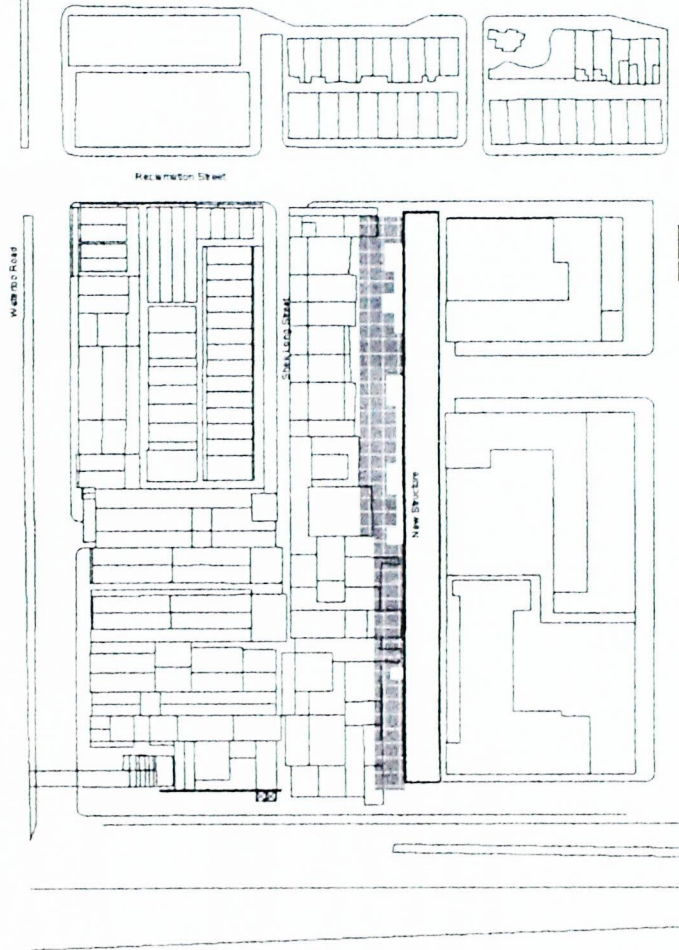
# Site Potentials

Fruit Market as a potential place for children's alternative experience / children as a new source of life for the decaying market?

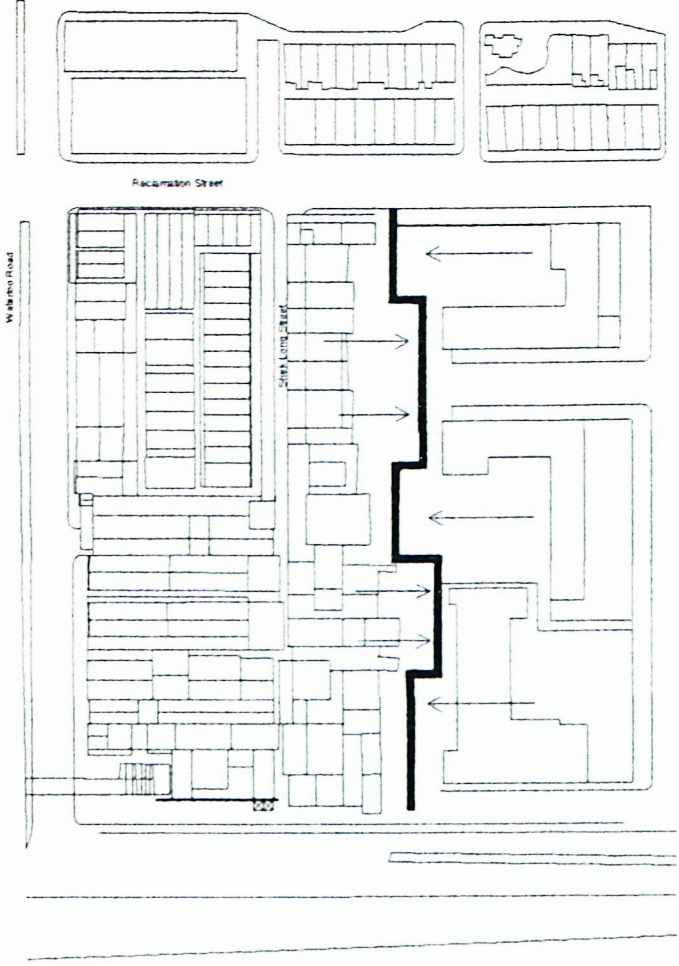
1. Potential new source of life for the market - School Children  
Possible extension of primary schools towards the existing parking space beyond the fence walls



2. Accelerated Expansion of the Fruit Market  
Possible Expansion towards the carpark in response to additional structure ( new fence wall or building)



3. Application of finger diagram  
A architectural intervention to balance the interest of the market and the school children

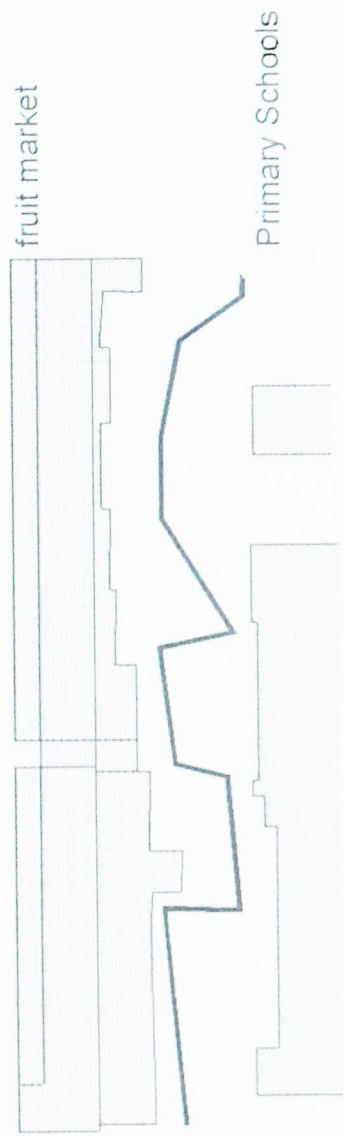


Assumptions:

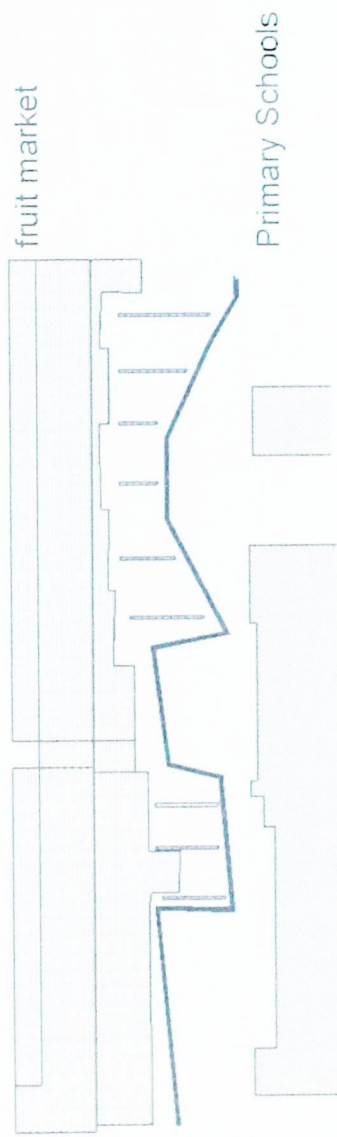
- 1.Truck parking area is provided else where
2. Fruit market will continue to operate in the evening and close in the morning



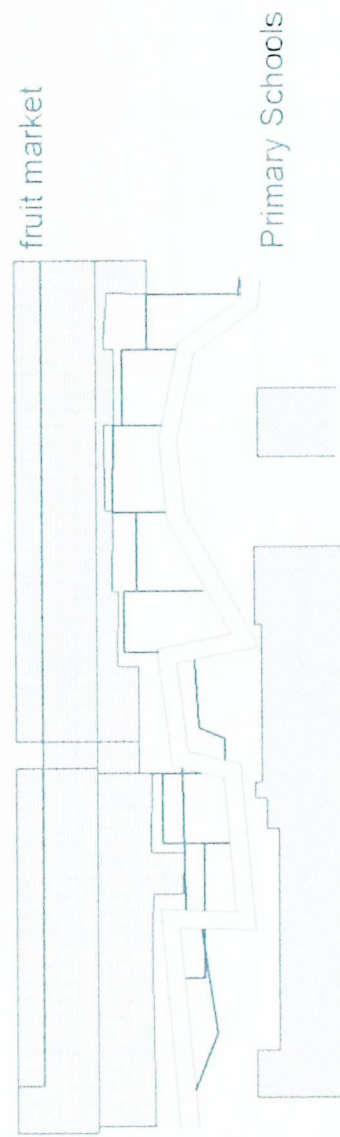
# Conceptual Development



Alteration of finger diagram - irregularity



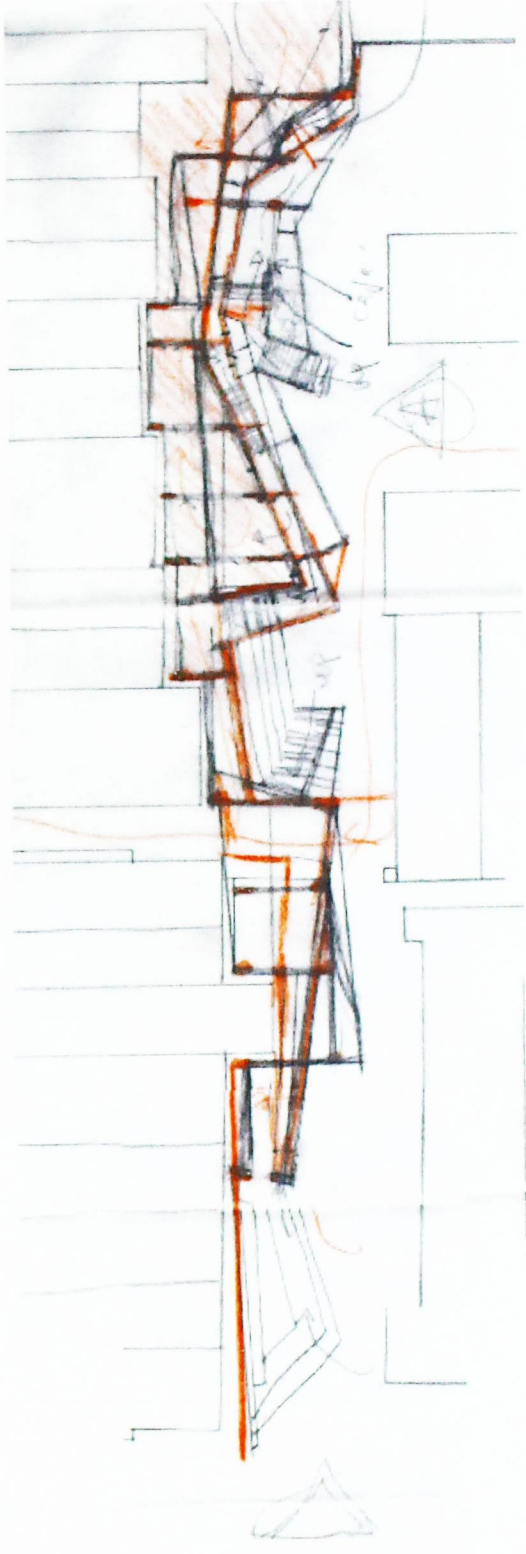
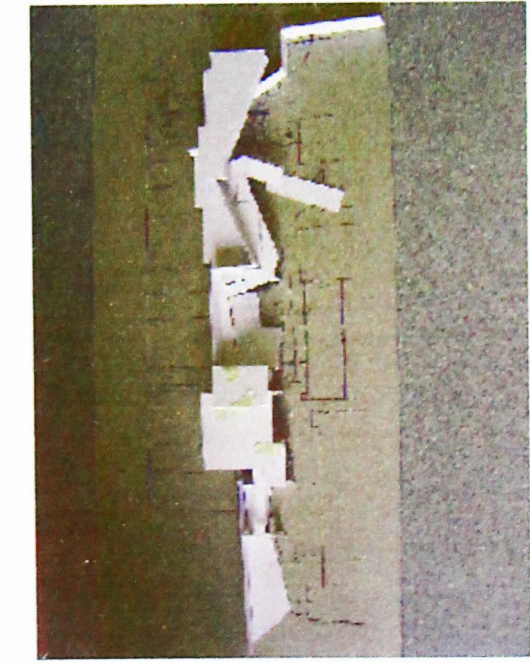
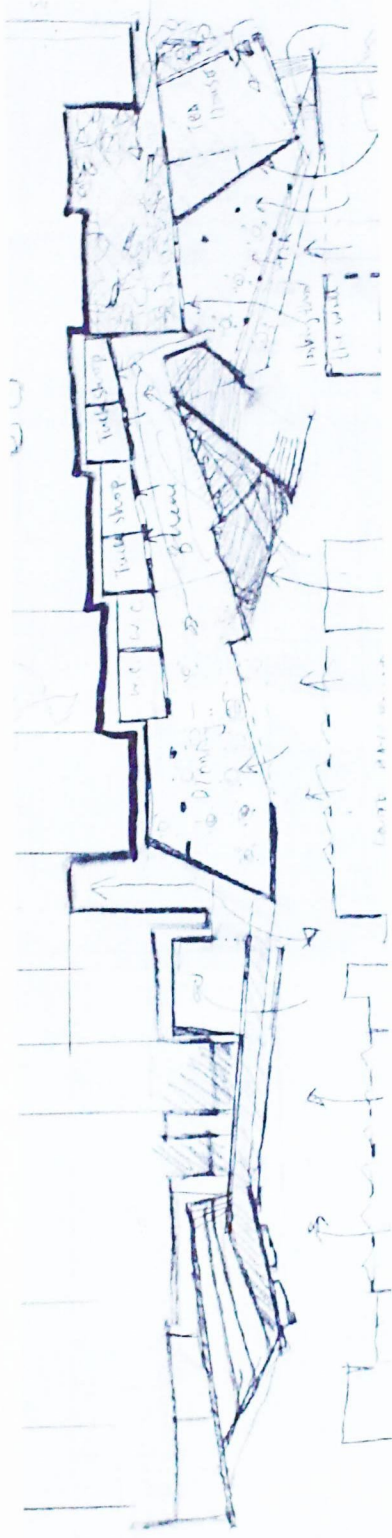
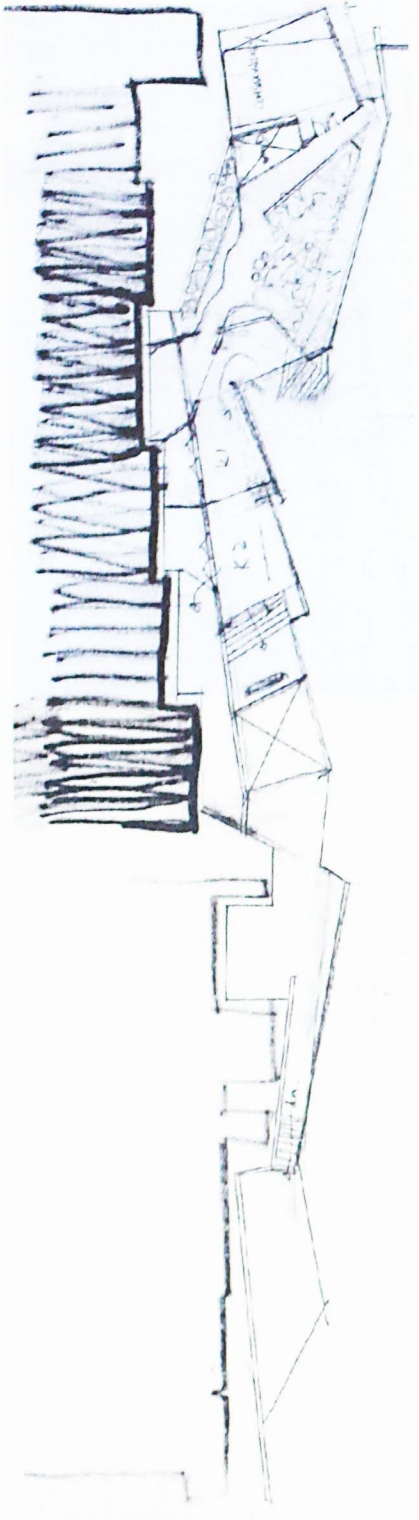
Extension of fruit market is represented by the grid lines. These lines stop extending when they meet the irregular line i.e. a restrained expansion of space from the fruit market side can allow a healthy growth, not a separate stretch of limit in response to an additional structure



An exploration route / circulation path is created to provide access to the new space created by the extension of fruit market grid as well as the irregular streetscape for children to explore.

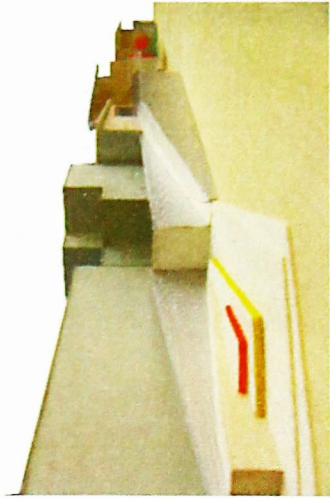
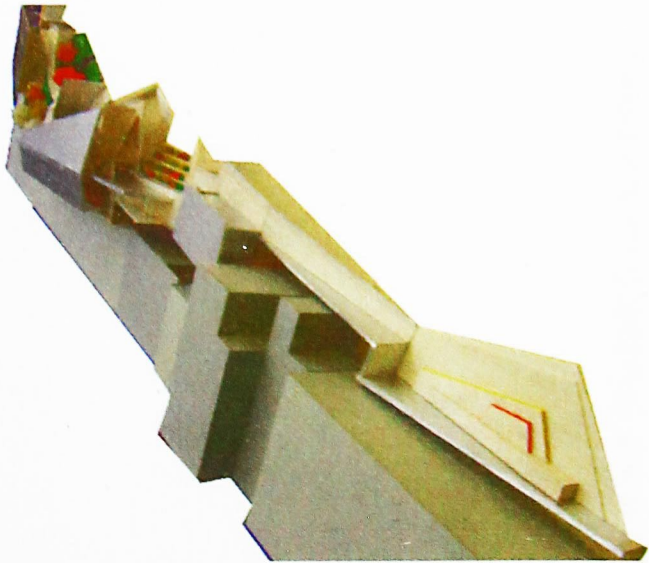


# Sketches & Study Models

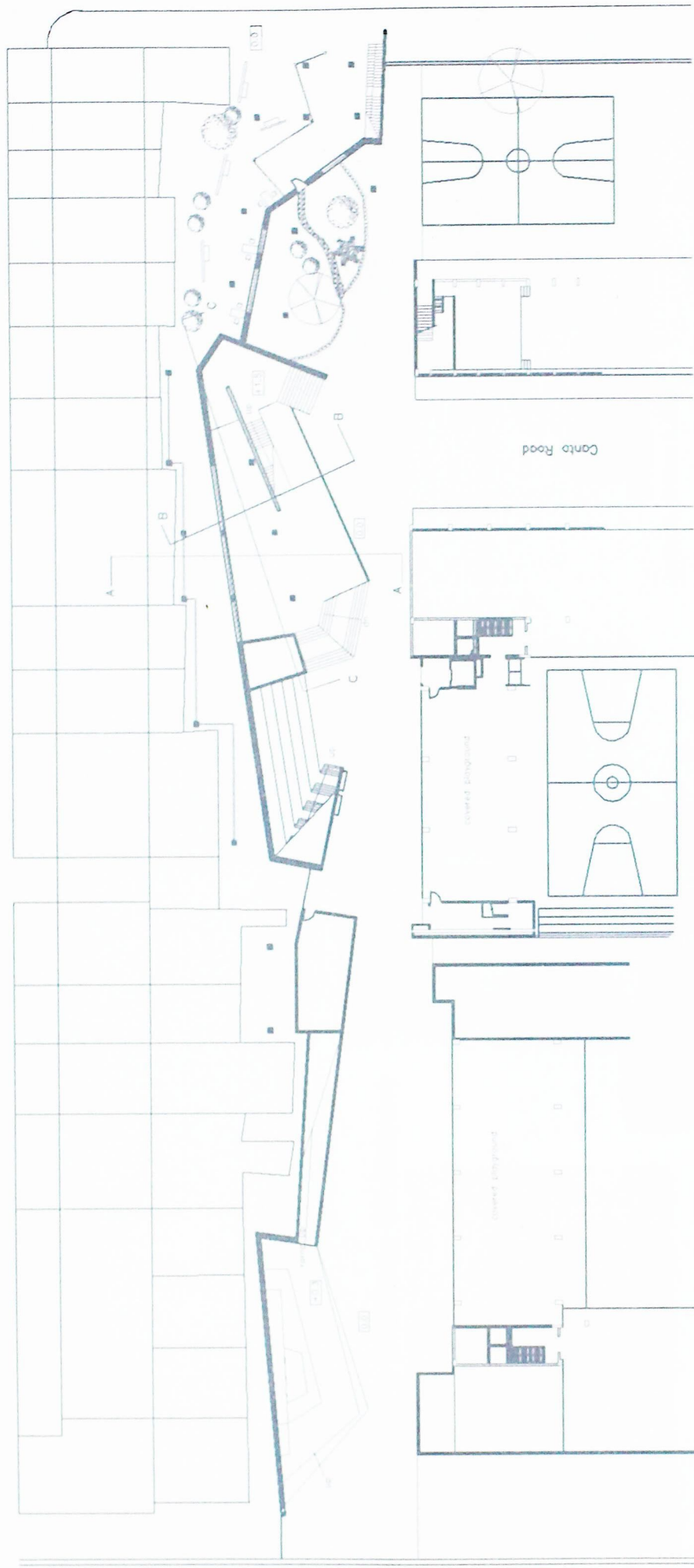




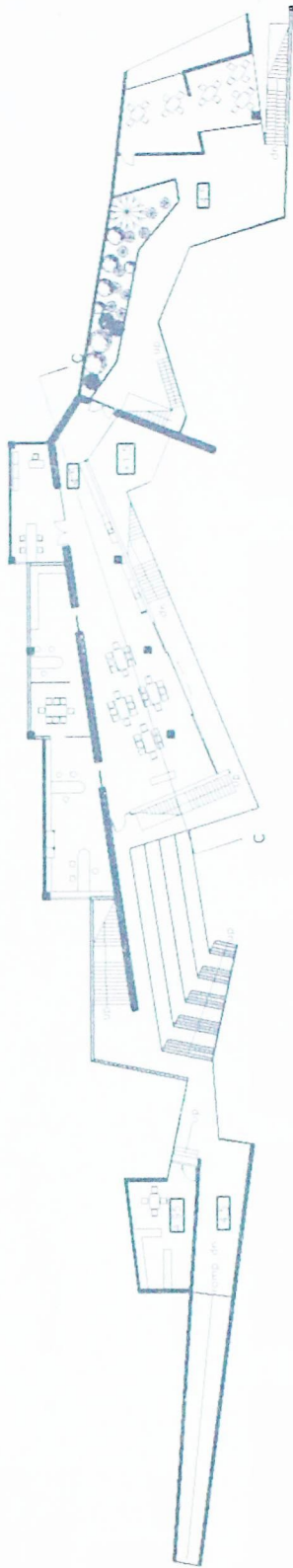
Scheme 1



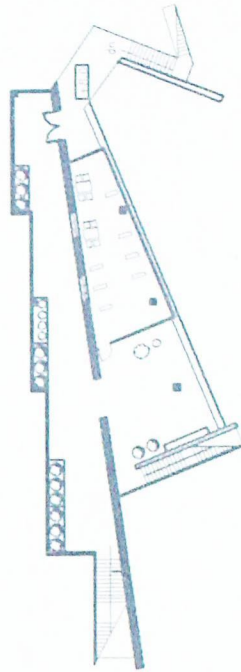
Ground Plan



First Floor Plan



Second Floor Plan





# Scheme 1

## Food and Nutrition Laboratory

### A Self-created Workplace for Primary School Children

#### in Yau Ma Tei

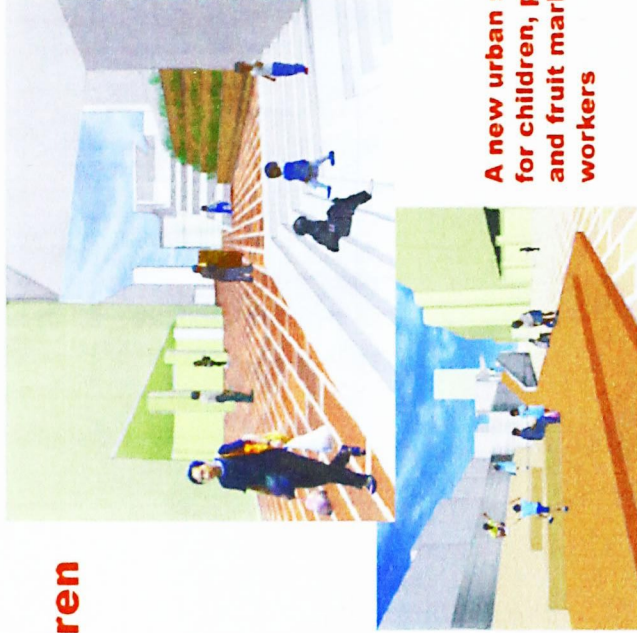
**Yau Ma Tei fruit market** - a self-organised community operating from midnight till dawn for over 80 years. Its effectiveness has made sure we all enjoy the freshest and delicious fruit out daily life.

**In-between**  
old and new,  
the interstitial  
space between the  
market and the  
school provides an  
opportunity for chil-  
dren to explore  
about themselves  
and the community in  
the growing up  
process

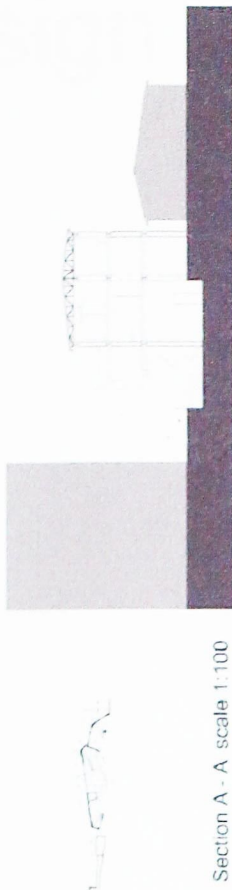
**Three Primary schools** have been located right next to the fruit market since 1960s. Children's are protected by the school fence walls - and form a close link to the housing estate, not the fruit market.

#### Program

- Nutrition Laboratory
- Healthy Tuck Shop
- Dinning Area
- Diet Consultation Centre
- Nursery Garden
- Fruit and Juice Bar
- Dried Fruit Archive
- Children's playground



**A new urban space**  
for children, parents  
and fruit market's  
workers



Section A - A scale 1:100



Section B - B scale 1:100



Front Elevation scale 1:200



Elevation facing Reclamation Street scale 1:200



First Floor



Second Floor



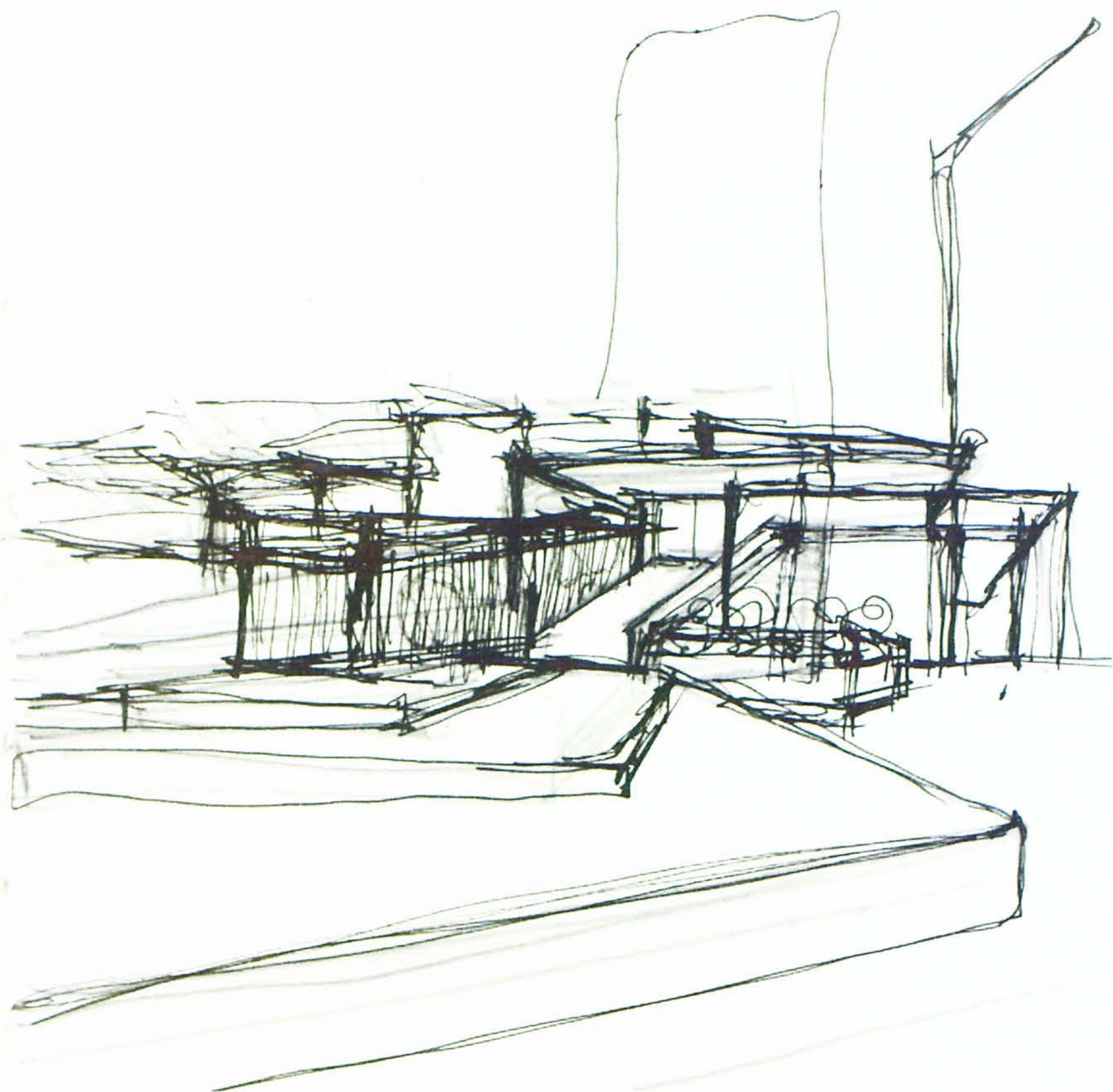
Lower Ground Floor

Ground Floor 1:300





05 Final Design



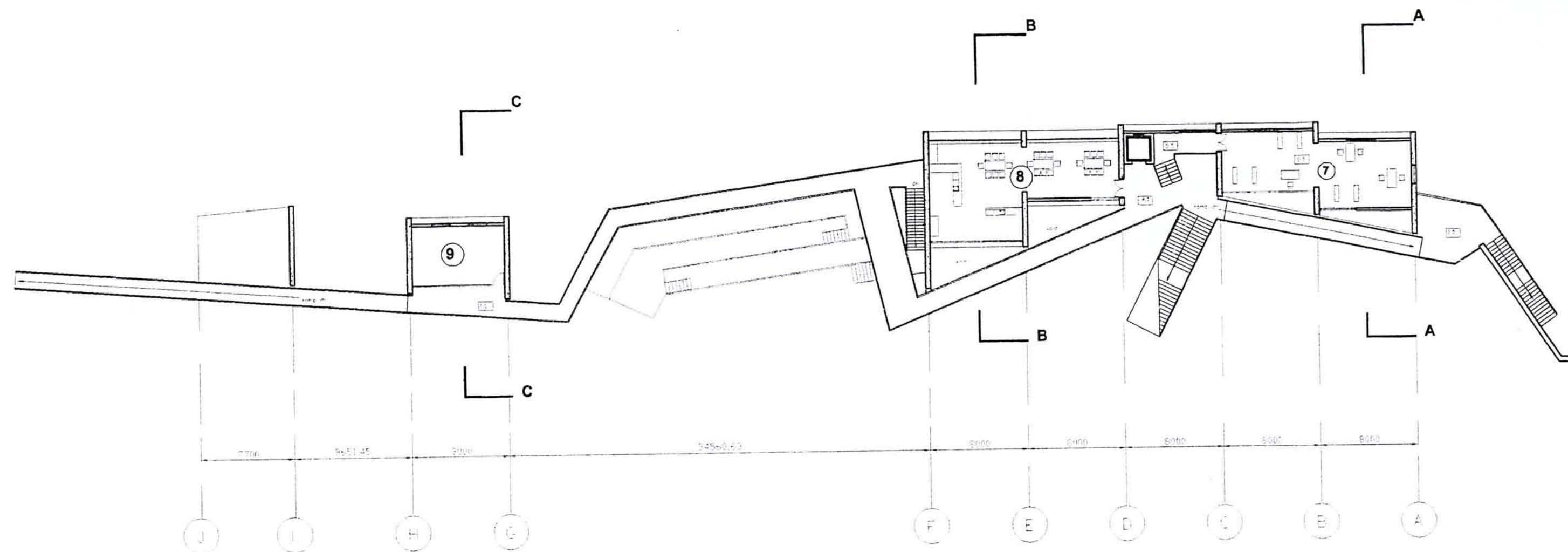


# Final Scheme

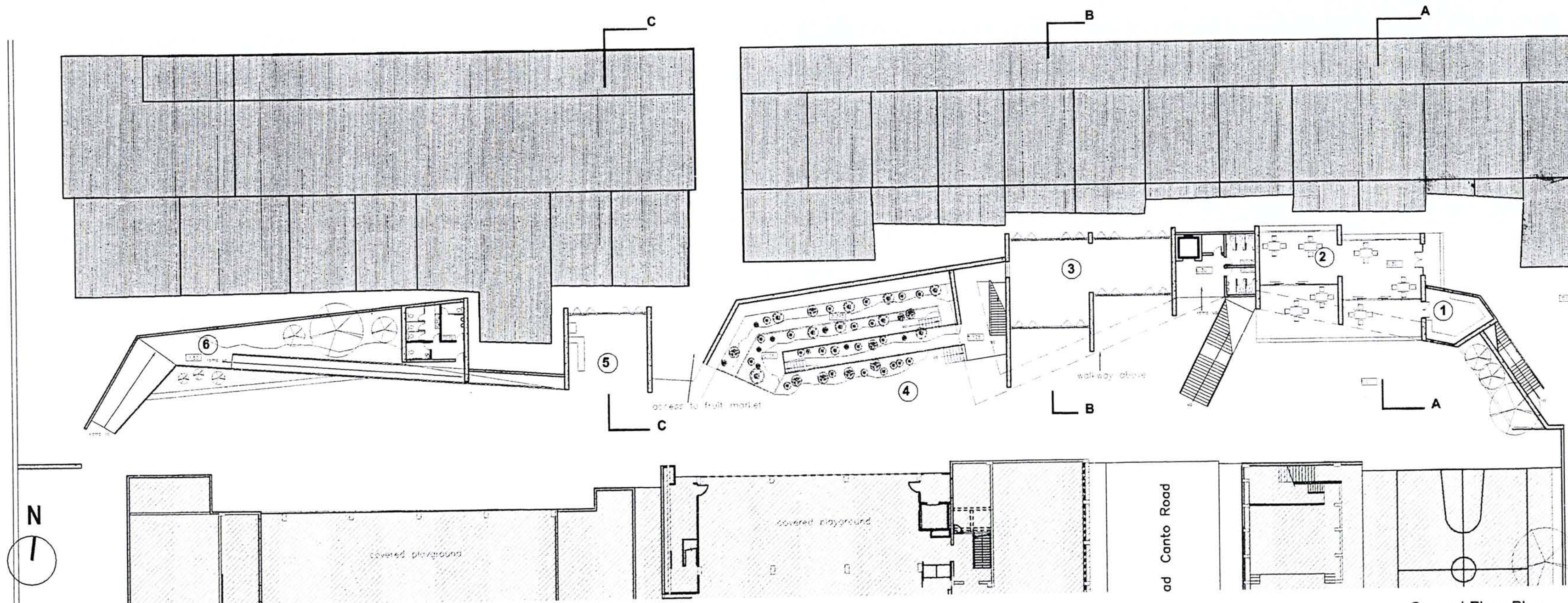
## Nutrition Learning Centre for Children in Yau Ma Tei

### Building Programme

- ① Kitchen
- ② Health Cafe
- ③ worker / children extended work area
- ④ nursery garden
- ⑤ Fruit & juice bar
- ⑥ Fruit & vegetable garden
- ⑦ Dried Fruit Archive / Library
- ⑧ Nutrition Laboratory
- ⑨ Nutrition Consultant

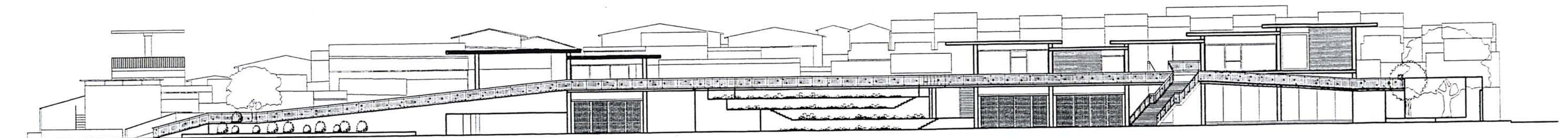
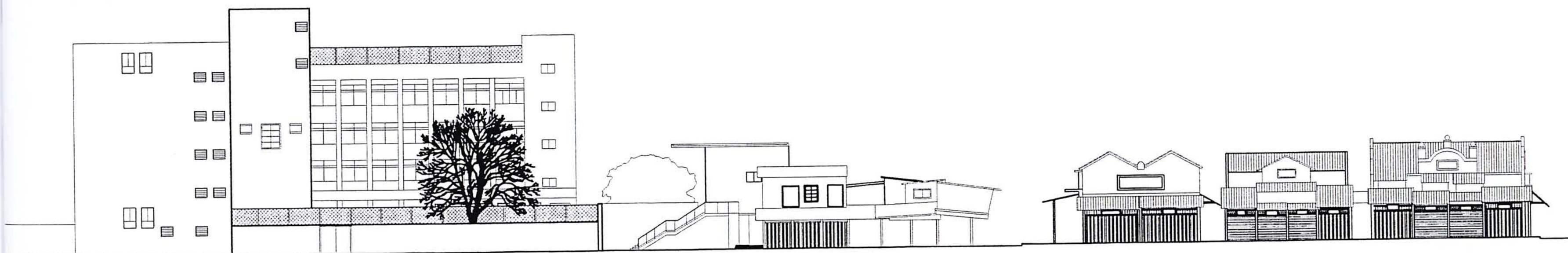


First Floor Plan



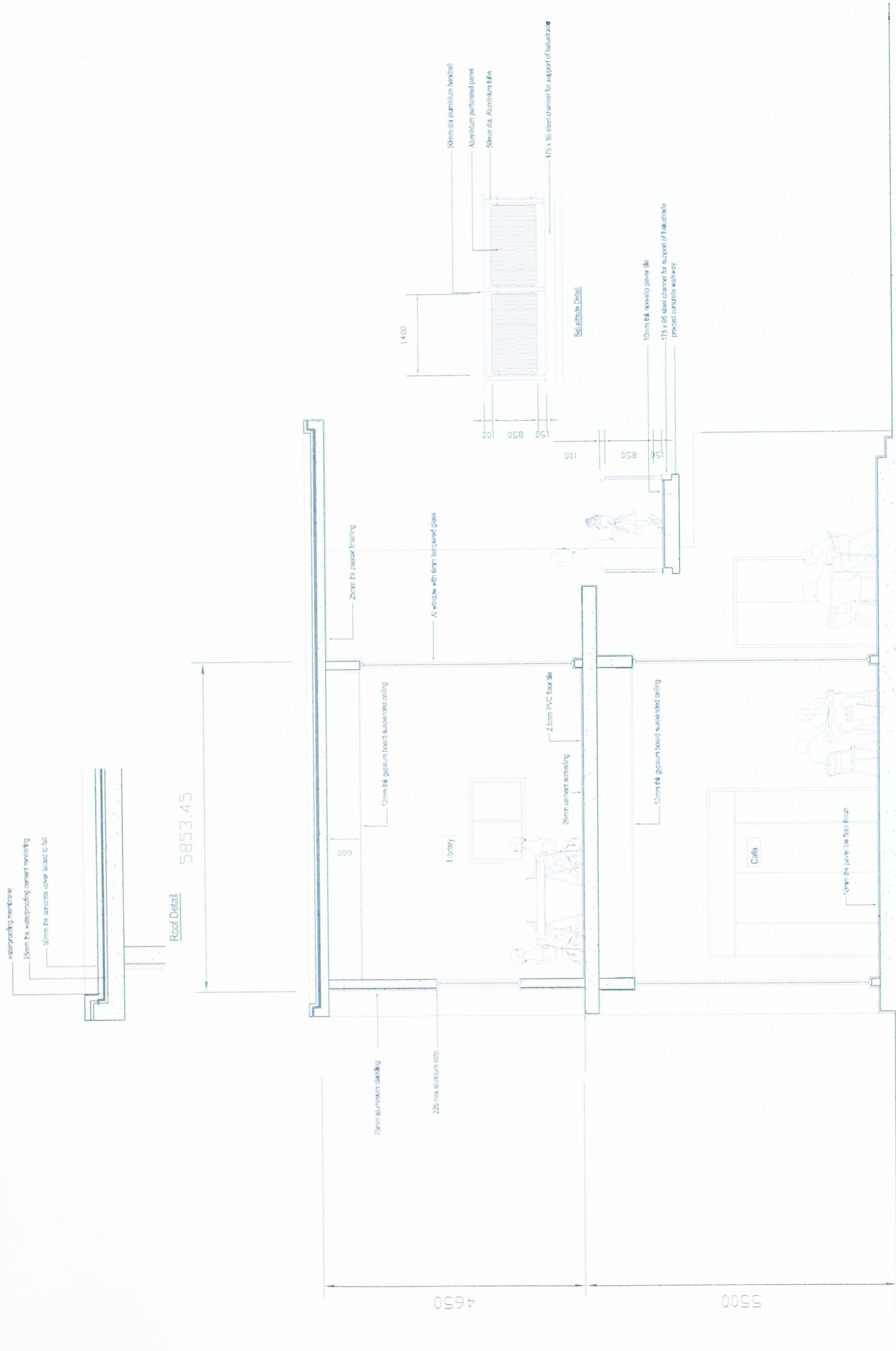
Ground Floor Plan  
Scale 1:300





Scale 1:300





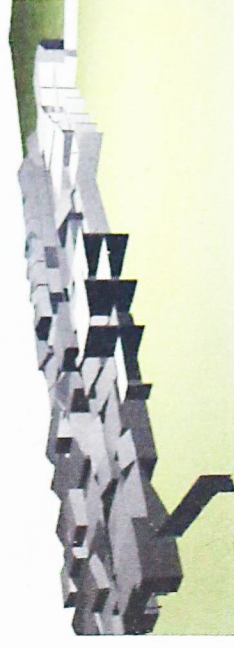
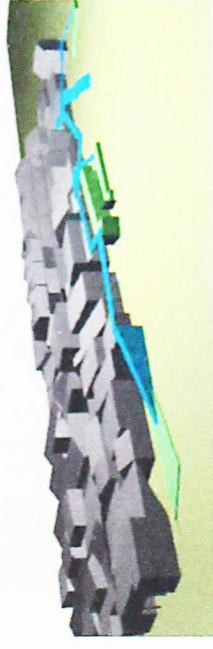
Section A - A  
Scale 1:100



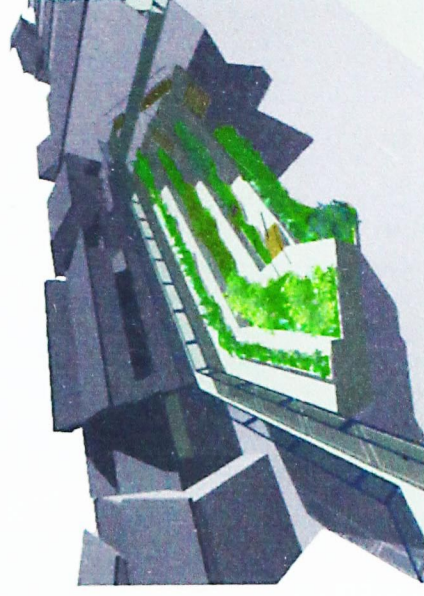
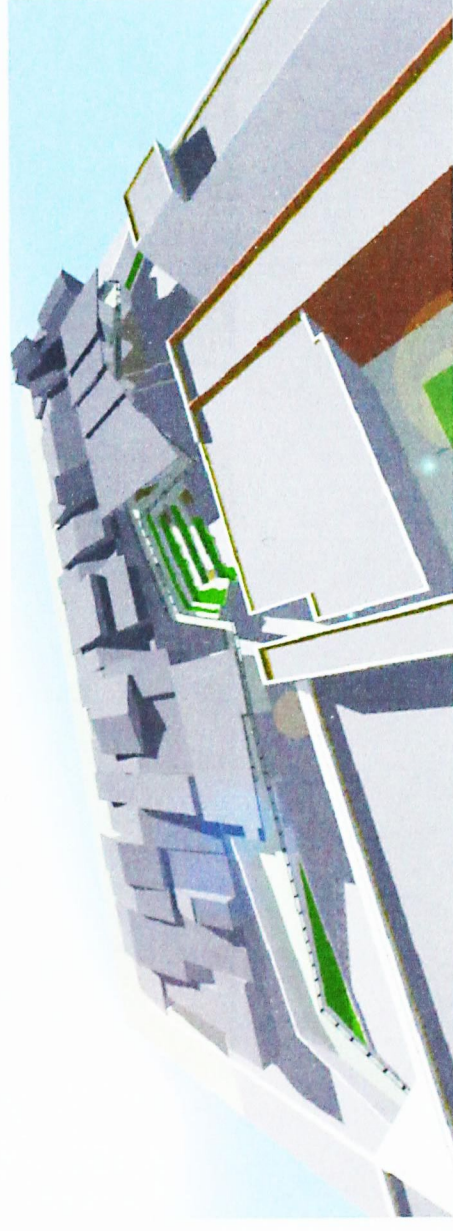
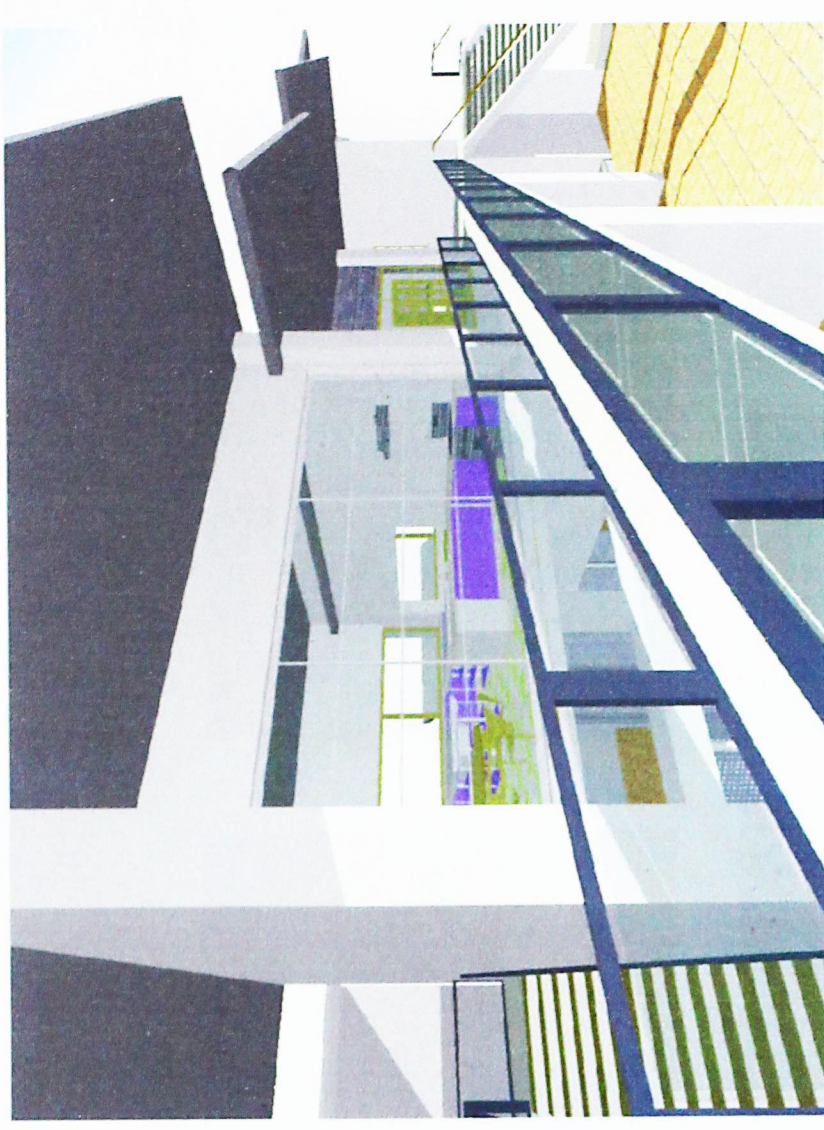




Growth  
Diagram

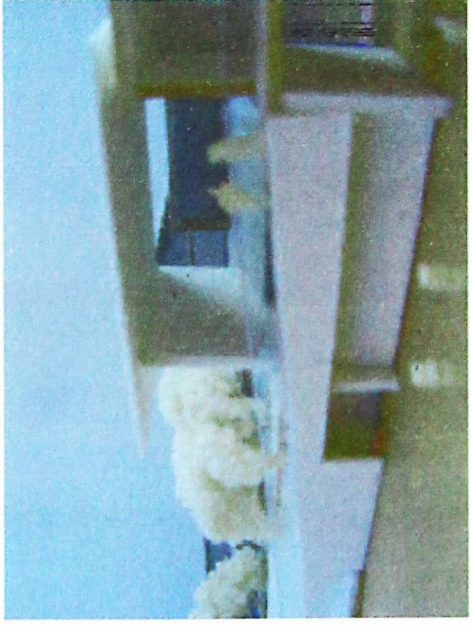
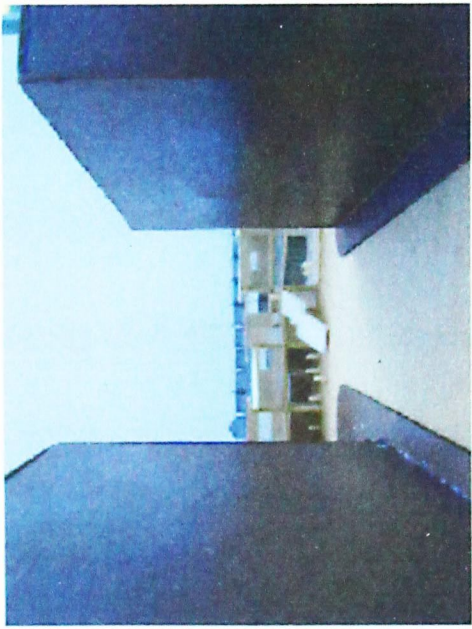
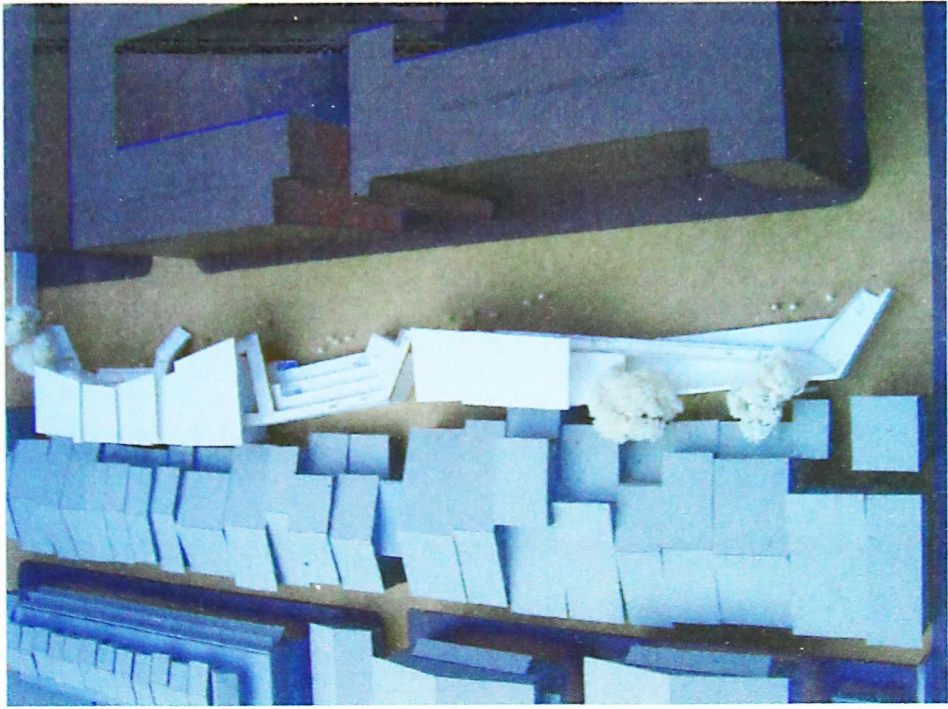


Perspectives





Final Model





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The International Montessori Index [www.montessori.edu/](http://www.montessori.edu/)

Leathers and Associates [www.leathersassociates.com/](http://www.leathersassociates.com/)







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